Government of Pakistan

National Vocational and Technical Training Commission

Prime Minister's Hunarmand Pakistan Program

"Skills for All"



Course Contents / Lesson Plan

Course Title: Networking & Cloud Computing **Duration:** 3 Months

Course Title	Networking & Cloud Computing		
Objectives and Expectations	Employable skills and hands-on practice for Networking and Cloud Computing		
	 Cloud Computing Networking has become one of the most attractive career profiles among candidates. From the basics of Routing and Switching to Cloud Networking, the advancements happening in the networking domain are beyond one's imagination. Cloud computing powers modern-day industry through seamless provision of servers, storage, networking, software and analytics. Study cloud computing to develop in-demand skills and expertise in virtualization, cloud infrastructure, app development and security. This is a special course designed to address unemployment in the youth. The course aims to achieve the above objective through hands on practical training delivery by a team of dedicated professionals having rich market/work experience. This course is therefore not just for developing a theoretical understanding/back ground of the trainees. Contrary to that it is primarily aimed a equipping the trainees to perform commercially in a market space ir independent capacity or as a member of a team. The course therefore is designed to impart not only technical skills but also soft skills (i.e interpersonal/communication skills; personal grooming of the trainees etc) as well as entrepreneurial skills (i.e marketing skills; free lancing etc.). The course also seeks to inculcate work ethics to foster better citizenship in general and improve the image of Pakistani work force in particular 		
	Main Expectations:		
	In short, the course under reference should be delivered by professional instructors in such a robust hands-on manner that the trainees are comfortably able to employ their skills for earning money (through wage/self-employment) at its conclusion. This course thus clearly goes beyond the domain of the traditional training practices in vogue and underscores an expectation that a market-centric approach will be adopted as the main driving force while delivering it. The instructors should therefore be experienced enough to be able to identify the training needs for the possible market roles available out there. Moreover, they should also know the strengths and weaknesses of each trainee to prepare them for such market roles during/after the training.		
	 i. Specially designed practical tasks to be performed by the trainees have been included in the Annexure-I to this document. The record of all tasks performed individually or in groups must be preserved by the management of the training Institute clearly labeling name, trade, session, etc so that these are ready to be physically inspected/verified through monitoring visits from time to time. The weekly distribution of tasks has also been indicated in the weekly lesson plan given in this document. ii. To materialize the main expectations, a special module on Job Search & Entrepreneurial Skills has been included in the latter part of this course (3rd month) through which the trainees will be made aware 		
	of the Job search techniques in the local as well as international job markets (Gulf countries). Awareness around the visa process and immigration laws of the most favored		

 labor destination countries also form a part of this module. Moreover, the trainees would also be encouraged to venture into self-employment and exposed to the main requirements in this regard. It is also expected that a sense of civic duties/roles and responsibilities will also be inculcated in the trainees to make them responsible citizens of the country. iii. A module on Work Place Ethics has also been included to highlight the importance of good and positive behavior in the workplace in the line with the best practices elsewhere in the world. An outline of such qualities has been given in the Appendix to this document. Its importance should be conveyed in a format that is attractive and interesting for the trainees such as through PPT slides +short video documentaries. Needless to say, that if the training provider puts his heart and soul into these otherwise non-technical components, the image of the Pakistani workforce would undergo a positive transformation in the local as well as international job markets. To maintain interest and motivation of the trainees throughout the course, modern techniques such as: Motivational Lectures Success Stories Case Studies These techniques would be employed as an additional training tool wherever possible (these are explained in the subsequent section on Training Methodology). Lastly, evaluation of the competencies acquired by the trainees will be done objectively at various stages of the training and a proper
record of the same will be maintained. Suffice to say that for such evaluations, practical tasks would be designed by the training
providers to gauge the problem-solving abilities of the trainees.
(i) Motivational Lectures
The proposed methodology for the training under reference employs motivation as a tool. Hence besides the purely technical content, a trainer is required to include elements of motivation in his/her lecture. To inspire the trainees to utilize the training opportunity to the full and strive towards professional excellence. Motivational lectures may also include general topics such as the importance of moral values and civic role & responsibilities as a Pakistani. A motivational lecture should be delivered with enough zeal to produce a deep impact on the trainees. It may comprise of the following:
Clear Purpose to convey the message to trainees effectively. Personal Story to quote as an example to follow.
I rainees Fit so that the situation is actionable by trainees and not represent a just idealism.
Ending Points to persuade the trainees on changing themselves. A good motivational lecture should help drive creativity, curiosity, and spark
the desire needed for trainees to want to learn more. The impact of a successful motivational strategy is amongst others
commonly visible
in increased class participation ratios. It increases the trainees' willingness to be engaged on the practical tasks for a longer time without boredom and loss of interest because they can see in their mind's ever where their hard work would take them in short (1-3)
years); medium (3 -10 years) and long term (more than 10 years).

As this tool is expected that the training providers would make arrangements for regular well planned motivational lectures as part of a coordinated strategy interspersed throughout the training period as suggested in the weekly lesson plans in this document.

Course-related motivational lectures online link is available in Annexure-II.

(ii) Success Stories

Another effective way of motivating the trainees is using Success Stories. Its inclusion in the weekly lesson plan at regular intervals has been recommended till the end of the training.

A success story may be disseminated orally, through a presentation, or using a video/documentary of someone that has risen to fortune, acclaim, or brilliant achievement. A success story shows how a person achieved his goal through hard work, dedication, and devotion. An inspiring success story contains compelling and significant facts articulated clearly and easily comprehendible words. Moreover, it is helpful if it is assumed that the reader/listener knows nothing of what is being revealed. The optimum impact is created when the

story is revealed in the form of: -

Directly in person (At least 2-3 cases must be arranged by the training institute)

Through an audio/ videotaped message (2-3 high-quality videos must be arranged by the training institute)

It is expected that the training provider would collect relevant highquality success stories for inclusion in the training as suggested in the weekly lesson plan given in this document.

Suggestive structure and sequence of a sample success story and its various shapes can be seen in **Annexure III**.

(iii) Case Studies

Where a situation allows, case studies can also be presented to the trainees to widen their understanding of the real-life specific problem/situation and to explore the solutions.

In simple terms, the case study method of teaching uses a real-life case example/a typical case to demonstrate a phenomenon in action and explain theoretical as well as practical aspects of the knowledge related to the same. It is an effective way to help the trainees comprehend in depth both the theoretical and practical aspects of the complex phenomenon in depth with ease. Case teaching can also stimulate the trainees to participate in discussions and thereby boost their confidence. It also makes the classroom atmosphere interesting thus maintaining the trainee interest in training till the end of the course.

Depending on suitability to the trade, the weekly lesson plan in this document

may suggest case studies be presented to the trainees. The trainer may adopt a PowerPoint presentation or video format for such case studies whichever is deemed suitable but only those cases must be selected that are relevant and of a learning value.

The Trainees should be required and supervised to carefully analyze the cases.

For this purpose, they must be encouraged to inquire and collect specific information/data, actively participate in the discussions, and intended solutions to the problem/situation.

Case studies can be implemented in the following ways: -

- i. A good quality trade-specific documentary (At least 2-
 - 3 documentaries must be arranged by the training

	institute)	
	 Health &Safety case studies (2 cases regarding safety and industrial accidents must be arranged by the training institute) 	
	Field visits (At least one visit to a trade-specific major industry/ site must be arranged by the training institute)	
Trainees Entry-level	Beginner to Intermediate	
Learning Outcomes of the course	By the end of this course, the trainees should gain the following competencies:	
	Understanding of Networking techniques Campus Design & Enterprise Network Configuration of IP Connectivity Configuration of Advance Routing and Routing Protocols Management of Network Security of Network Problems Solving Skills Troubleshooting Skills Network Monitoring Skills Network Designing High Availability of Network Remote Site Management Secure and Encrypted traffic b/w branches Implementation of Network Policies Programmability and Automation	
	Understanding of Cloud Computing Architecture	
	Distinguish between traditional and cloud computing models in terms of business value.	
	Learn fundamental concepts of cloud computing.	
	Identify technical challenges and mitigation measures involved in cloud computing.	
	Understand latest digitization trends associated with cloud computing.	
	Design and build enterprise-to-carrier grade private and public cloud. Learning focus would be on following: -	
	Understand various types of virtualizations (compute, storage and network) Identify leading hypervisor manufacturers. Learn the fundamentals concepts and deployment of vSphere virtual infrastructure. Security threats and challenges in private and public cloud buildup. Understand design principles in securing your cloud. Security management in cloud including identity and access management, next generation security protection and application programming interface (API) based security.	

	Identify common cloud attack vectors and remediating controls. Learn Off the Shelf Cloud Solutions like Microsoft Azure and Amazon Web Services (AWS)
	Detailed understanding of Microsoft Azure Cloud. Cover the fundamentals of AWS architectural principles and services. Deep dive into individual elements like IAM, S3, Cloud front, Storage Gateway, Snowball, EC2, Cloud watch, CLI, Lambda, Route 53, RDS, Dynamo DB, Redshift, Elastic Cache, Aurora, VPC, SQS, SNS, Elastic Transcoder, Kinesis, API Gateway etc.
Course Execution Plan	The total duration of the course: 3 months Theory: 20% Practical: 80%
Companies offering jobs in the respective trade / Job Opportunities	Practical: 80% There are thousands of Job opportunities in the field of networking. Few of them are mentioned below: PTCL (Pakistan Telecommunication Company Limited) Jazz (Mobilink) Telenor Pakistan Zong (China Mobile Pakistan) National Data Consultants (NDC Tech) Systems Limited Inbox Business Technologies WorldCall Telecom Limited Vision Telecom Pvt Ltd COMSATS Internet Services Nokia Siemens Networks Motorola NSC Global Siemens Saif Telecom Descon Engineering Descon Mirani Presson Descon Olayan Descon JGC- Descon / DIP Etimaad IAEL ABB Automation SFEC Group Pakistan About Us Callmate Telips Lahore Gymkhana Royal Palm
	Serena Hotel Islamabad Sinaco Engineers Novatax Limited Hascom Business Excircom
	SB&B Advertising Polaris Values Raaziq International Pvt Ltd OOCL Pakistan Exel Pakistan
	Yaseen Shipping

	Karachi International Terminal Ltd Intertek Pakistan WWF Pakistan ESBI Merlin International Pakistan Arbor Tech Hyperstar Expereo Pak Oasis Industries Pvt. Ltd. OMV Exploration GmbH M3 Tech Allcom
Instructional Resources	Video Links: https://www.youtube.com/@iptrainers https://www.youtube.com/@corvitsystemslahore https://www.cisco.com/c/en/us/training-events/training- certifications.html https://www.netacad.com/ https://skillsforall.com/ https://e.huawei.com/en/talent/portal/#/ https://learningcontent.cisco.com/games/binary/index.html https://learningcontent.cisco.com/games/binary/index.html https://learningcontent.cisco.com/games/binary/index.html https://learningcontent.cisco.com/games/binary/index.html https://learningcontent.cisco.com/games/binary/index.html https://www.deakin.edu.au/courses/find-a-course/information-technology/cloud-computing-and-networking The daily lectures for the class will be recorded and made available on OneDrive, and the link to access them will be shared with the students. The whiteboard activities from each day will be converted to PDF format and shared with students via a OneDrive link.
Modules	Weekly (Hourly) plan is given below.

Scheduled Weeks	Module Title	Learning Units	Home Assignments /
Week1	Introduction	Trainer's Introduction General Guidelines Course Introduction Course Scope	Class Quiz will be conducted
		Cloud Computing Concept, History, and Definitions	
		Differentiating types of clouds: public, private and hybrid Categorizing service	
		types Basic Networking Terms Evaluation	
Day1	09:00AM – 09:45AM	Trainer's Introduction	
	09:45AM – 11:00AM 11:00AM – 11:45AM	General Guidelines Evaluation Course Introduction	
	11:45AM – 01:00PM	Course Scope Evaluation	
Day2	09:00AM - 09:45AM 09:45AM - 11:00AM	Cloud Computing Concept, History, and Definitions Advantages of Cloud Business Model	
	11:00AM – 11:45AM 11:45AM – 01:00PM	Evaluation	
Day3	09:00AM – 09:45AM 09:45AM – 11:00AM	Differentiating types of clouds: public, private and hybrid Categorizing service	
	11:00AM – 11:45AM 11:45AM – 01:00PM	types	
Day4	09:00AM – 09:45AM	Trainer's Introduction	
	09:45AM – 11:00AM	Evaluation	
	11:00AM – 11:45AM 11:45AM – 01:00PM	Course Scope Basic Networking Terms	
		Evaluation TCP/IP & OSI Model Evaluation	
Day5	09:00AM – 09:45AM	Introduction to Network Devices History of IPv4 Addressing	
	09:45AM – 11:00AM 11:00AM – 11:45AM	Format of IPv4 Addressing Classification of IPv4 Addressing Calculating Number of networks in	
	11:45AM – 01:00PM	classes Calculation number of hosts per network Introduction to Decimal, Binary and Hexa-Decimal Numbers	
Week2	IPv4 & IPv6	Evaluation Concept of Network-id and Broadcast-id	Class Quiz will be conducted
	Addressing	Subnet Mask and Wildcard Mask Concept of Default Gateway Routed & Non-Routed Ports	and MCQs will be given to solve to practice Subnetting.
		Rules of IP addressing for Routed Ports	

		Classless IP addressing:	
		Subnetting and Super netting	
		IPv6 Addressing:	
		History of IPv6 Addressing	
		Format of IPv6 addressing	
		Network Prefix and Interface ID	
		MAC Addressing:	
		Format of MAC addresses	
		Types of MAC addresses	
		LAN and WAN cables	
		Practice & Evaluation	
		Physical Overview of Routers and	
		Switches	
		I AN switching operations	
		Link Aggregation application and	
		configuration	
		Define the files and compensate of	
		virtual machines	
		Virtual machines	
		nypervisor: Kole and Purpose In	
		virtualization and Various Hypervisor	
		Types	
		Virtualization: Terminologies and the	
		different Types of Virtualizations	
		Overview of vSphere virtual	
		infrastructure	
Day1	09:00AM – 09:45AM	Concept of Network-id and Broadcast-id	
	00.45 004 - 11.00 004	Subnet Mask and Wildcard Mask	
	11:00AM – 11:45AM	Concept of Default Gateway	
		Routed & Non-Routed Ports	
	11:45AM – 01:00PM	Rules of IP addressing for Routed Ports	
		Classless IP addressing:	
		Subnetting and Super netting	
Day2	09:00AM – 09:45AM	IPv6 Addressing:	
•		History of IPv6 Addressing	
	09:45AM – 11:00AM	Format of IPv6 addressing	
	11.00004 11.45004	Network Prefix and Interface ID	
	11.00AW - 11.45AW	Types of IPv6 Addresses:	
	11:45AM – 01:00PM	Global Unicast Addresses	
		Link Local Addresses	
		Multicast Addresses	
		wullest Auulesses	
		MAC Addrossing:	
		Format of MAC addresses	
		Types of MAC addresses	
Dav3	09:00AM - 09:45AM	Revision & Motivational Talk	
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	09:45AM – 11:00AM	Davides	
	11:00AM – 11:45AM		
		LAN and WAN cables	
	11:45AM – 01:00PM	Practice & Evaluation	
		Physical Overview of Routers and	
		Switches.	
		How to access network devices locally.	
		How to access network devices locally. Difference between local and remote	

		Introduction to terminal applications	
		such as Putty, Hyper terminal and	
		Secure CRT etc.	
		LAN switching operations	
		Link Aggregation application and	
		configuration.	
		VLAN principle, application and	
		configuration	
Day4	09:00AM - 09:45AM	Creation of public accounts	
		Managing cloud users	
	09:45AM – 11:00AM	Practice and Evaluation	
		Managing groups and	
	11:00AM – 11:45AM	Teams	
	11·45AM - 01·00PM	Creation of groups and teams	
Dav5	09:00AM – 09:45AM	Define the files and components of	
		virtual machines	
		Hypervisor: Role and Purpose in	
	09.45414 - 11.00414	Virtualization and Various Hypervisor	
	11:00AM – 11:45AM	Types	
		Virtualization: Terminologies and the	
	44.45.45.4	different Types of Virtualizations	
	11:45AM – 01:00PM	Overview of vSphere virtual	
		infrastructure	
Week3	Lab Setup with	Revision & Motivational Talk	Lab Task will be assigned to
	Cisco & Huawei	Basic Lab Setup with Cisco and Huawei	individual candidate and
	Devices	Devices	outputs will be checked by
		LAN and WAN cables	instructor and TA's.
		Physical Overview of Routers and	
		Physical Overview of Routers and Switches.	
		Physical Overview of Routers and Switches. How to access network devices locally.	
		Physical Overview of Routers and Switches. How to access network devices locally. Difference between local and remote	
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		Practice above configuration of Circle	1
		Practice above configuration of Lisco	
		Packet Tracer, GNS3 and eNSP	
Dav1	09·00AM - 09·45AM	Virtualization: Panofite Challenges	
Dayı	05.00/101 05.45/101	Ricks and Suitability to Organizations	
		Risks, and Suitability to Organizations	
		Describe the benefits of using virtual	
	09·45AM - 11·00AM	machines	
	11:00AM – 11:45AM	Explain the similarities and differences	
		between physical architectures and	
		virtual	
	11·45AM - 01·00PM	Define the purpose of vCenter Server	
Dav2	09:00AM – 09:45AM		
- ~,-		Define the purpose of ESXi	
	09:45AM – 11:00AM	Installation of ESXi	
	11·00ΔN/ - 11·/5ΔN/	Configuring ESXi services	
	11.00AIVI - 11.43AIVI	Introduction to Compute Virtualization	
		& Identify the files that make up a	
	11:45AM – 01:00PM	virtual machine	
Day3	09:00AM – 09:45AM	Discuss the latest virtual machine	
	09:45AM – 11:00AM	hardware and its features	
		Describe virtual machine CPU, memory,	
	11:00AM – 11:45AM	disk, and network resource usage	
	11.45 4 44 01.0004	Explain the importance of VMware	
	11:45AM - 01:00PM	Tools™	
Day4	09:00AM – 09:45AM	Introduction to Cisco IOS and CLI.	
		Initial Configuration of Cisco IUS.	
	09:45AM – 11:00AM	Introduction of different modes of Lisco	
	11:00AM – 11:45AM	IUS.	
	11·45AM – 01·00PM	Configure and verify clock	
		Configure and verify user access	
		verification or login password	
		Configure and verify enable password	
		Configure and verify enable secret	
		Learn how to modify conv write and	
		erase configuration	
		Verify running-config and startup-config	
Dav5	09:00AM – 09:45AM	Create username. password and their	
		privileges	
		Create username, password and their	
		privileges in Huawei VRP	
	09:45AM – 11:00AM	How to configure and troubleshoot	
		Ethernet and Serial interfaces.	
	11:00AM – 11:45AM	Configure description on interfaces.	
	11:45AM – 01:00PM	Configure ipv4 and ipv6 addresses on	
		interfaces.	
		Configure Keepalive, clock rate and	
		encapsulation on interfaces.	
Week4	Advanced	Revision & Motivational Talk	Lab Task will be assigned to
	Configurations	Introduction to LAN and WAN	individual candidate and
	Of Cisco IOS and	interfaces How.	outputs will be checked by
	Huawei VRP	to configure and troubleshoot Ethernet	instructor and TA's.
		and Serial interfaces.	
		Configure description on interfaces.	

		· · · · · · · · · · · · · · · · · · ·	
		Configure ipv4 and ipv6 addresses on	
		interfaces.	
		Configure Keepalive, clock rate and	
		encapsulation on interfaces.	
		now to make admin up and down	
		Merify connectivity with test traffic	
		Introduce ICMP echo and echo ronly	
		lise of ping command and understand	
		output	
		Impact of round-trip time	
		Remote-access with TELNET and SSH	
		Introduction of DNS	
		Configure DNS.	
		Introduction to DHCP.	
		How to configure DHCP on Cisco IOS and	
		Huawei VRP	
Day1	09:00AM – 09:45AM	Remote-access with TELNET and SSH.	
-		Introduction to DHCP.	
		How to configure DHCP on Cisco IOS	
	11:00AM – 11:45AM	Understand next hop.	
		Practice & Evaluation	
		How to configure next hop with:	
	11:45AM – 01:00PM	Outgoing interface	
		Next Hop IP address	
		Practice & Evaluation	
Day2	09:00AM – 09:45AM	Revision & Motivational Talk	
		Introduction to Routing for reachability.	
	09:45AM – 11:00AM	Understand static routing.	
		Configure and verify static routing for	
	11:00AM – 11:45AM	IPv4	
		Introduction to Dynamic Routing	
		Types of routing protocols	
	11:45AM – 01:00PM	Define IGP & EGP	
D _ D _	00.0045454	Evaluation	
Days	09.00AIVI - 09:45AIVI	Interior gateway protocols:	
		KIR. KOULING INFORMATION PROTOCOL	
		IS-IS: Intermediate System to	
	09:45AM - 11:00AM	Intermediate System	
	11:45AM – 01:00PM	Evaluation	
		Exterior Gateway protocols:	
		BGP: Border Gateway Protocol	
		Evaluation	
		Administrative Distance or preference of	
		routing methods.	
		Configure and verify Default Routing.	
Day4	09:00AM – 09:45AM	Storage Architecture for Virtualization	
-		Physical Disk Types and Related	
		Techniques	
	11:00AM – 11:45AM	Centralized Storage vs. Distributed	
	11:45AM – 01:00PM	Storage	
		Virtualized Storage vs. Non-Virtualized	
		Storage	
		Storage	

		Introduction to VM Disks	
Day5	09:00AM – 09:45AM	Introduce storage protocols and storage	
		device types	
	09:45AM – 11:00AM	Discuss ESXi hosts using iSCSI, NFS, and	
		Fiber Channel storage	
		Create and manage VMFS and NFS	
	11:00AM – 11:45AM	datastores	
	11.00/101 11.40/101	Network Functions Virtualization (NFV)	
		Bring Your Own Device (BYOD) and	
	11:45AM – 01:00PM		
Week5	Basic Routing	Revision & Motivational Talk	Lab Task will be assigned to
		Understand next hon	autpute will be sheeked by
		How to configure post hop with:	instructor and TA's
		Outgoing interface	Instructor and TAS.
		Next Hon IP address	
		Understand static routing	
		Configure and verify static routing for	
		IPv4	
		Introduction to Dynamic Routing	
		Types of routing protocols	
		Interior gateway protocols:	
		RIP: Routing Information Protocol	
		OSPF: Open Shortest Path First	
		IS-IS: Intermediate System to	
		Intermediate System	
		Exterior Gateway protocols:	
		BGP: Border Gateway Protocol	
		Administrative Distance or preference of	
		routing methods.	
		Configure and verify Default Routing.	
		Configure and verify DHCP Relay Agent.	
Day1	09:00AM – 09:45AM	NoSQL databases characteristics	
	09:45AM – 11:00AM	NoSQL databases types	
	11:00AM – 11:45AM	Practice & Evaluation	
	11.4EANA 01.00DNA	Practice 8 Evaluation	
	11.43 AW = 01.00 PW	Doploy and configure vContor	
Dayz	03.00/101 03.43/101	Server	
		Lise vSnhere Web Client	
	09.45414 - 11.00414	Backup and restore vCenter Server	
	11:00AM – 11:45AM	vCenter Server permissions and roles	
	11:45AM – 01:00PM	vSphere HA architectures and features	
Day3	09:00AM – 09:45AM	vSphere authentication	
-		Manage vCenter Server inventory	
	09:45AM – 11·00AM	objects and licenses	
	11:00AM – 11:45AM	Access and navigate the new vSphere	
	11:45AM – 01:00PM	clients	
		Practice & Evaluation	
Day4	09:00AM – 09:45AM	Configure and verify CDP	
		Evaluation	
		Configure and verify NTP: Network Time	
	09:45AM – 11:00AM	Protocol	
		Evaluation	
	11.00AIVI - 11:45AIVI	Password Recovery	

	11:45AM – 01:00PM		
Day5	09:00AM – 09:45AM	Introduction to Access Control List	
		Evaluation	
		Configure and verify standard ACL	
	09:45AM – 11:00AM	Configure and verify extended ACL	
	11:00AM – 11:45AM	Evaluation	
		Contiguous and dis-contiguous wildcard	
	11:45AM – 01:00PM	mask	
		Implement named and numbered ACL	
Week6	Mid Term Exam	Revision & Motivational Talk	Lab Task will be assigned to
	Notwork Comisso	Configure and verify CDP	Individual candidate and
	and IOS Eastures	Configure and verify NTP: Network Time	instructor and TA's
	and its realures	Protocol	instructor and TAS.
		Pictocol Password Pacovany	
		Configure and verify Embedded Event	
		Manager: FFM	
		Configure KRON Scheduler	
		Configure and verify SYSLO	
Day1	09:00AM – 09:45AM	Introduction to public and private IP	
-		addresses	
		Evaluation	
	09:45AM – 11:00AM	Introduction to NAT and PAT.	
		Configure and verify network address	
	11:00AM - 11:45AM	translation	
	11:45AW - 01:00PW	Evaluation	
		Configure and verify PAT/NAT-	
		overloading	
Day2	09:00AM - 09:45AM	OSPF: Open Shortest Path First	
		Link State Algorithm	
	11:00AM – 11:45AM		
	11:45AM – 01:00PM	OSPF Process-Id.	
		Configure Leonback Interfaces	
		OSPE Area-id	
		OSPE contiguous wildcard mask	
		OSPF Metric: cost	
		OSPF Tables:	
		Evaluation	
		Configure and verify single area OSPF	
Day3	09:00AM – 09:45AM	Design and implement multiple area	
		OSPF.	
	09:45AM – 11:00AM	Regular and transit area.	
	11:00AM – 11:45AM	Evaluation	
	11:45AM – 01:00PM	Define Internal Router, Backbone	
		Router, Backbone Internal Router, Area	
		Border Kouter and ASBK.	
		Introduce and configure redictribution	
		Define seed/external metric	
		Type 1 and Type 2 seed metric	
		Evaluation	
		Static routes with null-0 for testing	
		Practice & Evaluation	
Day4	09:00AM – 09:45AM	Perform vSphere vMotion and	
-		vSphere Storage vMotion migrations	

	T		
	09·45AM - 11·00AM	Create and manage virtual	
	11:00AM – 11:45AM	machine	
		snapshots	
	11:45AM – 01:00PM	Create, clone, and export vApps	
		Introduce the types of content	
		libraries and how to deploy and use	
		them	
		Security and Compliance in Cloud	
		Physical Security and Cloud	
		Computing	
		Practice & Evaluation	
Dav5	09:00AM - 01:00PM	Mid Term Exam	
Week7	IP Traffic	Revision & Motivational Talk	Lab Task will be assigned to
	Management &	Introduction to Access Control List	individual candidate and
	Socurity	Configure and verify standard ACI	outputs will be shocked by
	On Cisco P	Configure and verify standard ACL	instructor and TA's
	Un cisco &	Configure and discontinuous wildowd	Instructor and TA's.
	nuawei	contiguous and dis-contiguous wildcard	
		mask	
		Implement named and numbered ACL	
		Introduction to public and private IP	
		addresses	
		Introduction to NAT and PAT.	
		Configure and verify network address	
		translation	
		Configure and verify PAT/NAT-	
		overloading	
Dav1	09:00AM - 09:45AM	Describe cloud security reference	
2491		architecture	
		Understand design principles of secure	
	09:45AM – 11:00AM	cloud computing	
	11.00000 11.45004	Creating and managing virtual machines	
	11:45AM – 01:00PM	Dractice & Evaluation	
Dav2		Fractice & Evaluation	
Dayz	09:45AM - 11:00AM	Configure and manage as Cabara UA	
		Configure and manage a vSphere HA	
	11:00AM – 11:45AM	ciuster	
		Use vSphere HA advanced parameters	
	11:45AM – 01:00PM	Define cluster-wide restart ordering	
		canabilities	
		Enforce infrastructural or intra ann	
		dependencies during failouar	
		Describe vCohere UA bearth ant	
		Describe vsphere HA neartbeat	
		networks and data store heartbeats	
		Introduce vSphere Fault Tolerance	
		Enable vSnbere Fault Tolerance on	
		virtual machines	
		Examine enhanced consolidation of	
		usphore Eault Telerance withus	
		vopriere rauit rolerance virtual	
		machines	
		Introduce vSphere Replication	
		Lise vSphere Data Protection to back up	
		and rectore data	
		and restore udid	
Dav 2	00.00000		
Day3	09:00AIVI – 09:45AIVI	Introduction to DHCP.	

	09:450M - 11:000M	How to configure DUCD	
	09.45AW - 11.00AW	How to configure DHCP	
	11:00AM – 11:45AM	How to configure DHCP	
	11:45AM – 01:00PM	Practice & Evaluation	
Day4	09:00AM – 09:45AM	Revision & Motivational Talk	
		Introduction to PBR tools:	
	09·45AM - 11·00AM	Route-map	
	11:00AM – 11:45AM	IP prefix-list	
	11:45AM – 01:00PM	Distribute-list	
		ACL	
		OSPF neighbor states	
Dav5	09:00AM – 09:45AM	OSPF over multi-access networks	
•		DR, BDR and DRO roles in multi-access	
	00.45454.44.00454	networks	
	11:00 AM = 11:00 AM	Evaluation	
	11.00/10/ 11.45/10/	Introducing OSPF LSA types 1 to 7.	
	11:45AM – 01:00PM	Practice & Evaluation	
Week8	Joh Search &	Revision & Motivational Talk	Lab Task will be assigned to
	Entronronourial	Job Search & Entrepreneurial Skills	individual candidate and
		(Search Jobs in at least two labor	outputs will be checked by
	Skills (Search	marketplace countries)	instructor and TA's.
	Jobs in at least	Indextand and Implement Doubles	
	two labor	Understand and implement Routing	
	marketplace	Information Protocol.	
	countries)	OSPF: Open Shortest Path First	
		Link State Algorithm	
	Deep Dive into	OSPF Process-Id.	
	Dynamic Routing	OSPF Router-id.	
		Configure Loopback Interfaces	
		OSPF Area-id.	
		OSPF contiguous wildcard mask	
		OSPF Metric: cost	
		OSPF Tables:	
		Configure and verify single area OSPF.	
		Design and implement multiple area	
		OSPF.	
		Regular and transit area.	
		Define Internal Router, Backbone	
		Router, Backbone Internal Router, Area	
		Border Router and ASBR.	
		Introduce and configure redistribution.	
		Define seed/external metric.	
		Type 1 and Type 2 seed metric.	
		Static routes with null-0 for testing.	
Day1	09:00AM – 09:45AM	Regular area types:	
		Stub Area	
	09:45AM – 11:00AM	Totally Stubby area	
	11:00AM – 11:45AM	Evaluation	
		NSSA: Not So Stubby Area	
		Totally NSSA	
	11·//5//// _ 01·00D//	Configure and verify OSPF Virtual Links.	
	11.45AW - 01.00PW	Practice and Evaluation	
Day2	09:00AM – 09:45AM	Configure and verify OSPF Virtual Links.	
•		Practice and Evaluation	
		1	
	09:45AM - 11:00AM	Continuous and discontinuous OSPF	
	$11.00 \Delta M = 11.45 \Delta M$	Continuous and discontinuous OSPF backbones.	

Days 09:00.04 - 09:45.44 CSPF filters: IP prefix-lists 09:453.41 - 11:00.44 11:00.04 - 11:55.04 Evaluation Area filters Evaluation Passive interface Evaluation Route summarization Evaluation authentication Evaluation Day4 09:00.04 - 09:45.44 00:45.04 - 01:00.04 11:00.04 - 01:00.04 11:00.04 - 01:00.04 00:45.04 - 01:00.04 00:45.		00.00000	W	
IP prefix-lists 09453M - 11:000M 11:000A - 11:55M 11:000A - 11:55M Passive Interface Evaluation Passive Interface Evaluation 09:00AM - 09:45M 09:00AM - 09:45M DayA 09:00AM - 09:45M 11:00AM - 11:00AM 11:00AM - 11:00AM 11:00AM - 11:00AM 09:00AM - 09:45M 11:00AM - 11:00AM 09:00AM - 09:45M 11:00AM - 11:00AM 09:00AM - 09:45M Virtual Machines 11:00AM - 11:00AM 09:00AM - 09:45M Notactional Talk Introduction to PB tools: 11:00AM - 11:00AM Prefix-list 11:00AM - 11:00AM Notaction to PB tools: Route-map IP prefix-list Distribut-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR Example2: Industry Scenario-1 to Microsoft Azure Cloud Basic St	Day3	09:00AM – 09:45AM	OSPF filters:	
9945M4-1100M4 Folluation Passive interface 1135M Folluation Passive interface Evaluation Route sumarization Evaluation authentication authentication			IP prefix-lists	
11:00004 - 11:35AM Area fiters 11:00004 - 11:0000 Passive interface Evaluation Passive interface Evaluation authentication Day4 09:000M - 09:45AM 09:05M - 11:000M Monitoring and Management Day5 09:05M - 01:000M 09:05M - 11:000M Monitoring and Management 11:000M - 11:35AM Scale Sets 11:000M - 11:35AM Monitoring and Management Day5 09:05MM 09:05MM - 01:000M Writrud Machines Scale Sets Scale Sets 11:000M - 11:35AM App Service Week9 OSFP & Policy Based Routing Revision & Motivational Talk Industry Scenario-1 to implement PBR OSFP Packet types CSPF Packet types OSFP Packet types OSFP Packet types Stub Area Totally Stubby area NSSA: Not So Stubby Area <tr< td=""><td></td><td>09:45AM – 11:00AM</td><td>Evaluation</td><td></td></tr<>		09:45AM – 11:00AM	Evaluation	
11:45AM - 01:00PM Evaluation Passive interface Evaluation authentication authentication authentication		11:00AM – 11:45AM	Area filters	
Passive interface Passive interface Evaluation Route summarization Evaluation Authentication Day4 09:00AM - 09:3AM Data and Analytics Enterprise Integration Security and Identity Security and Identity 11:00AM - 11:00AM Introduction Virtual Machines 09:05AM - 11:00AM Scale Sets Individual candidate and outputs will be assigned to individual candidate and outputs will be checked by IP prefix-list 11:00AM - 11:00AM Distribute-list Act Example1: Individual candidate and outputs will be checked by IP prefix-list Week9 OSPF & Policy Revision & Motivational Talk Individual candidate and outputs will be checked by IP prefix-list Industry Scenario-1 to implement PBR Distribute-list ACL Example1: Industry Scenario-2 to implement PBR Distructor and TA's. OSPF Preighbor states OSPF ore multi-access networks Distribute-list ACL Example2: Industry Scenario-2 to implement PBR Day5 OSPF Preighbor states OSPF regibbor states OSPF neighbor states OSPF regibbor states OSPE over multi-access networks		11:45AM – 01:00PM	Evaluation	
Day4 09:00AM - 09:39AM 09:45AM - 11:00AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:00AM 11:00AM - 11:45AM 11:00AM - 11:00AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 11:45AM 11:00AM - 01:00AM 11:00AM - 01:00AM Lab Task will be assigned to individual candidate and outputs will be checked by instructor and TA's. Week9 Based Routing Based Routing 10:00AM - 01:00AM 11:00AM - 01:00AM 11:00AM - 01:00AM 10:00AM - 01:00AM 10:00AM - 01:00AM Lab Task will be assigned to individual candidate and outputs will be checked by instructor and TA's. Week9 Based Routing Based Routing 11:00AM - 01:00AM 10:00AM - 01:00AM Introduction to PBR tools: Notice of the period 10:00AM - 01:00AM 10:00AM - 01:00AM Week9 09:00AM - 09:45AM Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud/ Azure Foundations Azure Fortal 11:00AM - 11:00AM 09:45AM - 11:00AM 11:00AM - 11:00AM Azure Foundations Azure Fortal Compute 11:00AM - 11:00AM			Passive interface	
Based Routing Route summarization Evaluation authentication Route summarization Evaluation Day4 09:00AM - 09:45AM 11:00AM - 11:95AM 11:05AM - 11:00AM 11:00AM - 09:45AM 11:00AM - 09:45AM 11:00AM - 09:45AM 11:00AM - 11:95AM 11:00AM - 11:95AM Lab Task will be assigned tu indivitival acadidate and outputs will be checked by instructor and TA's. Week9 OSPF & Policy Based Routing Revision & Motivational Talk 11:00AM - 11:95AM 11:00AM - 11:95AM 11:00AM - 11:95AM 11:00AM - 11:95AM Lab Task will be assigned tu indivitival acadidate and outputs will be checked by instructor and TA's. Day1 09:00AM - 09:45AM 11:00AM - 09:45AM Introduction to Microsoft Azure Cloud Azure Fordial Creating a Free Azure Account Creating a Free Azure Acco			Evaluation	
Evaluation authentication Evaluation authentication Day4 09:00AM - 09:45AM 09:45AM - 11:00M 11:00AM - 11:45AM 09:45AM - 11:00M 11:00AM - 11:45AM 09:45AM - 11:00M 11:00AM - 11:45AM 09:45AM - 11:00M 11:00AM - 11:45AM 00:45AM - 11:00M 11:00AM - 11:45AM 00:45AM - 11:00M 11:00AM - 11:45AM 00:45AM - 11:00M 11:00AM - 11:45AM 00:45AM - 11:00M 11:00AM - 09:45AM Introduction Notivitional Talk Introduction to PBR tools: Route-map Rou			Route summarization	
Day4 0940AM - 0945AM 0945AM - 1145AM 1130AM - 1145AM 0945AM - 1100AM 0945AM - 1100AM 1145AM - 0100PM Data and Analytics Enterprise Integration Security and Identity Day5 0940AM - 0945AM 0945AM - 1100AM 1145AM - 0100PM Introduction Virtual Machines Scale Sets App Service Lab Task will be assigned to individual candidate and outputs will be checked by instructor and TA's. Week9 OSPF & Policy Based Routing Revision & Motivational Talk Introduction to PBR tools: Route-map IP prefix-list ACL Example1: Industry Scenario-1 to implement PBR OSPF Packet types OSPF regightor states OSPF regightor states OSPF regightor states OSPF registor states OSPF for wmlit-access networks DR, BDR and DRO roles in multi-access networks. Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud/ Azure Architecture Introduction to Microsoft Azure Cloud Azure Foundations Azure Portal Creating & Free Azure Account Footprint and Structure Azure Services Compute Introduction to Microsoft Azure Cloud Azure Footpait Management in Cloud/ Azure Azure Marketplace Azure Portal Creating & Free Azure Account Footprint and Structure Azure Services Compute Introduction to Microsoft Azure Cloud Azure Footpait Marketplace Azure Portal Creating & Free Azure Account Footprint and Structure Azure Services Compute			Evaluation	
Day4 09:00AM - 09:45AM Data and Analytics Day5 09:45AM - 11:00AM Enterprise Integration 09:45AM - 11:00AM 11:45AMA Security and Identity 10:00AM - 09:45AM Introduction Virtual Machines 09:45AM - 11:00AM 10:45AMA - 0:100PM App Service Week9 09:45AM - 11:00AM Revision & Motivational Talk Introduction to PBR tools: Noute-map Route-map Revision & Motivational Talk Individual candidate and outputs will be checked by IP prefix-list Distribute-list ACL Example1: Induction to PBR tools: NoSPF Packet types OSPF packet types OSPF packet types OSPF packet types OSPF packet types OSPF Packet types OSPF LSA types 1 to 7. Regular area types: Stub Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Area Totally Stubby area NSSA: Not So Stubby Area Totally Area Totally Stubby area NSSA: Not So Stubby Area Totally Area			authentication	
Data and Anlayad:S 0945M Enterprise Integration 0945M Enterprise Integration 0945M Security and Identity 0945M Introduction 0945M Untoduction 0945M Virtual Machines Scale Sets App Service Week9 OSPF & Policy Based Routing Revision & Motivational Talk Introduction to PBR tools: individual candidate and outputs will be checked by instructor and TA's. Distribute-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-1 to implement PBR OSPF Packet types OSPF over multi-access networks DR, BDR and DRO roles in multi-access NSA: Not So Stubby Area Totally Stubby area NSA: Not So Stubby Area Totally NSA Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Operations/ Network Security Management in Cloud/ Azure Cloud/ Azure Azure Marketplace Azure Marketplace Azure Portal	Dav/	09·00AM - 09·45AM	Data and Analytics	
09455M-1100AM Enterprise integration Security and Identity Monitoring and Management Day5 0930AM-09345AM 0945AM-1100AM Virtual Machines Scale Sets JarkaM-0100M 0945AM-1100AM Virtual Machines Scale Sets JarkaM-0100M 0945AM-1100AM Revision & Motivational Talk 1100AM-1145AM Revision & Motivational Talk 1110AM-1145AM Route-map 0945AM-1100AM Prefix-list 0945AM-1100AM Route-map Note-map Introduction to PBR tools: Route-map Introduction to Implement PBR OSPF Prepibor states OSPF neighbor states OSPF neighbor states OSPF orgen unlti-access networks DR, BDR and DRO roles in multi-access NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubb	Day4		Enterprise Integration	
11:00AM - 11:45AM Security and identity Monitoring and Management Day5 09:00AM - 09:45AM Introduction 09:45AM - 11:00AM 11:45AM - 01:00PM Scale Sets App Service Week9 OSPF & Policy Based Routing Revision & Motivational Talk Introduction to PBR tools: Note-map Introduction to PBR tools: Note-map In Prefix-list Lab Task will be assigned to individual candidate and outputs will be checked by instructor and TA's. Distribute-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR OSPF Packet types OSPF neighbor states OSPF neighbor states Socies Set Scenario-2 to implement PBR Introducing OSPF LSA types 1 to 7. Regular area types: Stub Area Totally Stubby area NSA: Not So Stubby Area Totally Stubby area NSA: Not So Stubby Area Totally NSA Day1 09:00AM - 09:45AM Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud / Azure Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud / Azure Foundations Azure Marketplace Azure Portal Creating a Free Azure Account Footprint and Structure Azure Services Compute		09:45AM – 11:00AM		
11:45AM - 0:300PM Monitoring and Management 09:04M - 09:45AM Introduction 09:045AM - 11:00AM Virtual Machines 11:0AM - 11:0AM Scale Sets App Service Revision & Motivational Talk USPF & Policy Revision & Motivational Talk Based Routing Introduction to PBR tools: Route-map Route-map ID SPF & Policy Revision & Motivational Talk Introduction to PBR tools: Individual candidate and outputs will be checked by instructor and TA's. Distribute-list AcL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR OSPF Packet types OSPF ore multi-access networks DR, BDR and DRO roles in multi-access NEtworks. Introduction to Microsoft Azure Cloud Basis Statistics Operations / Network Security Maagement in Cloud/ Azure Azer Foundations Azure Foundations Azure Foundations Azure Portal Creating a Free Azure Account Footprint and Structure Azure Services Compute Notal Put-11:0AM Networking <td></td> <td>11:00AM – 11:45AM</td> <td>Security and identity</td> <td></td>		11:00AM – 11:45AM	Security and identity	
DayS 09:00AM - 09:45AM Introduction 09:45AM - 11:00AH Virtual Machines Scale Sets App Service Revision & Motivational Talk Introduction to PBR tools: Introduction to PBR tools: Based Routing Revision & Motivational Talk Individual candidate and outputs will be enceded by instructor and TA's. Views Distribute-list ACL Example1: Industry Scenario-1 to implement PBR Example1: Industry Scenario-2 to implement PBR CSPF Packet types OSPF Packet types OSPF Packet types OSPF Packet types: OSPF Packet types: OSPF Packet types: OSPF or mightbor states OSPF Packet types: Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby Area Totally NSSA Introduction to Microsoft Azure Cloud Basis Statistics Operations/ Network Security Management in Cloud/ Azure Architecture Day1 09:45AM - 11:00AM Introduction to Microsoft Azure Cloud Azure Foundations 09:45AM - 11:00AM Reviews Gree Azure Account Footprint and Structure 09:45AM - 11:00AM Reviews Machinge		11:45AM – 01:00PM	Monitoring and Management	
09:45M - 11:00M Virtual Machines Scale Sets App Service Week9 OSPF & Policy Besed Routing Based Routing Revision & Motivational Talk Introduction to PBR tools: Route-map Lab Task will be assigned to individual candidate and outputs will be checked by instructor and TA's. Distribute-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR OSPF Packet types SpF Packet types OSPF over multi-access networks. DR, BDR and DRO roles in multi-access networks. Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Scale Sets: Scub Area Totally SSA Totally NSSA Introduction to Microsoft Azure Cloud Basic Statistics Scale Sets: Operations/ Network Day1 09:00AM - 09:45AM Introduction to Microsoft Azure Cloud Azure Foundations Azure Fortal Creating Area Azure Account Azure Fortal Creating Area Azure Account 09:45AM - 11:00AM Footprint and Structure Azure Services Compute Compute Networking Networking	Day5	09:00AM – 09:45AM	Introduction	
11:00M - 11:43M 11:45AM - 01:00PM App Service Week9 OSF & Policy Based Routing Revision & Motivational Talk Introduction to PBR tools: Route-map IP prefix-list Distribute-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR OSPF Packet types OSPF neighbor states OSPF neighbor states OSPF neighbor states OSPF neighbor states OSPF neighbor states OSPF reighbor states OSPF neighbor states OSPF n			Virtual Machines	
11:43AM - 01:00M App Service Week9 OSPF & Policy Revision & Motivational Talk Introduction to PBR tools: Based Routing Route-map Ip prefix-list individual candidate and outputs will be checked by instructor and TA's. Distribute-list ACL Example1: Industry Scenario-1 to implement PBR instructor and TA's. Distribute-list ACL Example2: Industry Scenario-2 to implement PBR OSPF Packet types OSPF Packet types OSPF preighbor states OSPF preighbor states OSPF over multi-access networks DR, BDR and DRO roles in multi-access networks. Introduction to SPI LSA types 1 to 7. Regular area types: Stub Area Totally Stubby area Totally Stubby area NSSA: Not So Stubby Area Totally NSSA Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud/ Azure Architecture Azure Foundations Azure Foundations Azure Foundations Azure Foundations Azure Foundations Azure Services Os45AM - 11:00AM Footprint and Structure Azure Services Compute Networking 1100AM - 01:45AM Networking <		11.000 M = 11.000 M	Scale Sets	
Week9 OSPF & Policy Based Routing Revision & Motivational Talk Introduction to PBR tools: Route-map IP prefix-list Distribute-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR OSPF Packet types OSPF Packet types OSPF relighbor states OSPF over multi-access networks DR, BDR and DRO roles in multi-access networks. Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud/ Azure Architecture Day1 09:00AM - 09:45AM 09:00AM - 09:45AM Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud/ Azure Architecture Azure Foundations Azure Foundations Azure Fortal Creating a Free Azure Account Footprint and Structure Azure Services Compute Networking 09:00AM - 11:00AM Footprint and Structure Azure Services Compute Networking		11:45AM – 01:00PM	App Service	
Based Routing Introduction to PPR tools: Individual candidate and outputs will be checked by instructor and TA's. Introduction to PPR tools: Route-map Individual candidate and outputs will be checked by instructor and TA's. Introduction to PPR tools: ACL Example1: Individual candidate and outputs will be checked by instructor and TA's. Introduction to PPR tools: ACL Example2: Industry Scenario-1 to implement PBR DSPF Packet types OSPF neighbor states OSPF neighbor states OSPF over multi-access networks OSPF orker types: Stub Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally NSSA Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud/ Azure Cloud/ Azure Azure Foundations Azure Foundations Azure Gordations Azure Foundations Azure Group Azure Account 109:45AM - 11:40AM Footprint and Structure 11:00AM - 11:45AM Compute 11:45AM = 01:00AM Networking	Week9	OSPF & Policy	Revision & Motivational Talk	Lab Task will be assigned to
Description Route-map Initiation instruction and instruction and instruction and TA's. IP prefix-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR Industry Scenario-2 to implement PBR SSPF neighbor states OSPF packet types OSPF packet types OSPF packet types OSPF over multi-access networks DR, BDR and DRO roles in multi-access networks. Introduction gOSPF LSA types 1 to 7. Regular area types: Stub Area Totally Stubby area Totally Stubby area NSSA: Not So Stubby Area Totally SSA Introduction to Microsoft Azure Cloud Basic Statistics Operations/ Network Security Management in Cloud/ Azure Azure Foundations Azure Foundations Azure Foundations Azure Rare Account Footprint and Structure 09:45AM - 11:00AM Footprint and Structure Compute Compute Networking		Based Routing	Introduction to PBR tools:	individual candidate and
Deputs man be checked by IP prefix-list Distribute-list ACL Example1: Industry Scenario-1 to implement PBR Example2: Industry Scenario-2 to implement PBR OSPF Packet types OSPF neighbor states OSPF over multi-access networks DR, BDR and DRO roles in multi-access networks. Introducing OSPF LSA types 1 to 7. Regular area types: Stub Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Stubby area NSSA: Not So Stubby Area Totally Asare Architecture Day1 09:00AM - 09:45AM Introduction to Microsoft Azure Cloud Azure Foundations Azure Marketplace Azure Foundations Azure Marketplace Azure Portal Creating a Free Azure Account Footprint and Structure Azure Services 11:00AM - 11:45AM Networking			Boute-map	outputs will be checked by
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$11.45\Delta M = 01.00PM$			Networking	
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		Storage	
		Storage	
		web and woblie	
		Databases	
	00.00414 00.45414		
Day2	09:00AM – 09:45AM	Introduction	
	09:45AM – 11:00AM	Regions and Availability Zones	
	11:00AM – 11:45AM	Resource Groups and Azure Resource	
	11:45AM – 01:00PM	Manager	
		Creating Azure Resources	
		Virtual Machines	
Day3	09:00AM - 09:45AM	Introduction to the Azure Network	
	09:45AW - 11:00AW	Creating VNETWORK	
	11:00AM – 11:45AM	Setting up address ranges	
		Subnets	
		Managing azure firewall security	
	11:45AM – 01:00PM	Bastions	
		DDOS	
		Firewall	
		LAB Practice	
Day4	09:00AM – 09:45AM	Revision & Motivational Talk	
	09·45AM - 11·00AM	Introduction to EGP	
	05.45/101 11.00/101	Evaluation	
	11:00AM – 11:45AM	Historical Background	
	11:45AM – 01:00PM	Introduction to Multihoming	
		Evaluation	
		BGP fundamentals.	
		Internal and External BGP.	
		Evaluation	
		BGP attributes:	
		Weight	
		Practice & Evaluation	
Day5	09:00AM – 09:45AM	Local preference	
		Evaluation	
		As-path	
	09:45AM – 11:00AM	Evaluation	
	11:00AM – 11:45AM	Router-id	
		BGP route-summarization	
	11·45AM – 01·00PM	PBR with BGP attributes and PBR tools	
		Evaluation	
		Full Mesh i-BGP	
		Route-reflector configuration	
		BGP configuration best practices	
		Evaluation	
		BGP authentication	
Week10	Introduction to	Introduction to AWS	Lab Task will be assigned to
	AWS	Introduction to the AWS products	individual candidate and
		Regions and Availability Zones	outputs will be checked by
	AWS Design	Signing up for AWS	instructor and TA's.
	constraints and	AWS Free usage tier	
	Managing	Introduction AWS	
		Management console	
		EC2 Instance	
		Understanding AMI	
		Launching your first AWS instance	
	-		
		On-demand Instance pricing	

			,
		Reserved Instance pricing	
		Spot instance pricing	
		Setting up security	
		Security groups	
		Public, Private & Elastic IP's	
		Deploying a new instance from	
		The created AMI	
		Key Pairs	
		Hybrid Connectivity Options	
		Routes and VNET Peering	
		Routing and Peering	
		Hybrid Scenarios	
		Introduction	
		Identity Services	
		Azure Active Directory	
		Multi-Factor Authentication	
		Lab: Azure Active Directory	
		, Create Azure AD Tenant	
		Demo: Create Users and Groups	
		Self-Service Password Reset	
Dav1	09:00AM – 09:45AM	AWS Platform	
		Introduction to AWS Flastic computing	
	09:45AM – 11:00AM	Introduction to the AWS products	
	11:00AM – 11:45AM	Regions and Availability Zones	
	11.45 ANA - 01.00PM	Signing up for AWS	
	11.45AW = 01.00FW	AWS From usage tion	
		Aws free usage lief	
		Introduction Aws management	
		Console	
Day2	09:00AM – 09:45AM		
		EC2 Instance	
	09·45AM - 11·00AM	Understanding AMI	
	09.45AW - 11.00AW	Launching your first AWS instance	
	11:00AM – 11:45AM	On-demand Instance pricing	
	11:45AM – 01:00PM	Reserved Instance pricing	
		Spot instance pricing	
		Setting up security	
		Security groups	
		Evaluation	
Day3	09:00AM - 09:45AM	Choosing & creating a new AMI	
	09:45AM – 11:00AM	Public, Private & Elastic IP's	
	11:00AM – 11:45AM	Deploying a new instance from the	
	11:45AM – 01:00PM	created AMI	
Day4	09:00AM – 09:45AM	Hybrid Connectivity Options	
-	09:45AM – 11:00AM	Routes and VNET Peering	
	11:00AM – 11:45AM	Routing and Peering	
	11·45ΔNA - 01·00DN4	Hybrid Scenarios	
Dav5	09:00AM - 09:45AM		
JayJ		Adulti Easter Authentication	
	09:45AM - 11:00AM	identity Services	
	11:00AW - 11:45AW	Azure Active Directory	
		Multi-Factor Authentication	
		Lab: Azure Active Directory	
	11:45AM - 01:00PM		
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		Demo: Create Azure AD Tenant	
		Demo: Create Users and Groups	
		Demo: Self-Service Password Reset	
Week11	Storage – Azure	Revision & Motivational Talk	Lab Task will be assigned to
		Storage – Azure	individual candidate and
		Introduction	outputs will be checked by
	AWS	Creating azure storage account	instructor and TA's
	Operations	Manago Azuro VM Storago	instructor and TAS.
		Storage Overview	
		BIOD	
		DISK	
		File	
		AWS Operations	
		Load Balancing	
		Introduction to Scaling	
		ELB (Elastic Load Balancer)	
		Components and types of load	
		balancing	
		Auto-scaling	
		Get Started with Auto Scaling Using	
		the Console	
		Maintain a Fixed Number of Running	
		EC2 Instances	
		Dynamic Scaling	
		The lifecycle of autoscaling	
		Policies of autoscaling	
Dav1	09:00AM – 09:45AM	Introduction	
		Blob	
		Disk	
	09:45AM - 11:00AM	File	
	11:00AM - 11:45AM	Archive	
	11:45AM – 01:00PM	Lab: Creating a Storage Account	
	09·00AM – 09·45AM	Introduction	
Dayz		Manage Azure VM Storage	
		VM Storage Overview	
	09:45AM – 11:00AM	Domo: Add Disk	
	11:00AM - 11:45AM	Managa dicks Practice & Evaluation	
Dav 2	11:45AM - 01:00PM	Indiage disks Practice & Evaluation	
Day3	09:00AM - 09:45AM	Private DNS	
	09:45AM – 11:00AM	Public DNS	
	11:00AM – 11:45AM	Name resolution in DNS services	
	11:45AM – 01:00PM	Static Private and Public IP	
		Azure multiple subnetting	
Day4	09:00AM – 09:45AM	Load Balancing	
		Introduction to Scaling	
	09:45AM – 11:00AM	ELB (Elastic Load Balancer)	
	11:00AM – 11:45AM	Components and types of load	
		balancing	
		Auto-scaling	
		Get Started with Auto Scaling Using	
	11·45ΔM – 01·00PM	the Console	
		Evaluation	
Dav5	09:00AM – 09:45AM	Maintain a Fixed Number of Running	
		FC2 Instances	
	09:45AM – 11:00AM	Dynamic Scaling	
	11:00AM – 11:45AM	The lifecycle of autoscaling	
	11.45 ANA 04.00014		
	11:45AIVI – 01:00PM	Policies of autoscaling	

Week12	AWS Storage	EBS (Elastic Block Storage)	Lab Task will be assigned to
	AWS Basic	Create EBS volumes	individual candidate and
	Security	Delete EBS Volumes	outputs will be checked by
		Attach and detach EBS volumes	instructor and TA's.
		Mounting and unmounting EBS	
		volume	
		Creating and deleting snapshots	
		Creating volumes from snapshots	
		S3(Simple Storage Service)	
		Storage in Cloud	
		S3 durability and redundancy	
		S3 Buckets	
		S3 Uploading Downloading	
		S3 Permissions	
		S3 Object Versioning	
		S3 Litecycle Policies	
		Storage Gateway	
		Import Export	
		S3 Transfer Acceleration	
		Intro to Accounts and Subscriptions	
		Routess Creating Zanac	
		Creating zones	
		Hosting a website	
		Weighted simple and failever policies	
		Identity Access Management (IAM)	
		Creating Users and Groups	
		Applying policies	
		Password Policy	
Dav1	09:00AM – 09:45AM	FBS (Flastic Block Storage)	
	09:45AM – 11:00AM	Create EBS volumes	
		Delete EBS Volumes	
	11:00AM – 11:45AM	Attach and detach EBS volumes	
	11:45AM – 01:00PM	LAB & Evaluation	
Dav2	09:00AM – 09:45AM	Mounting and unmounting EBS	
	09:45AM – 11:00AM	volume	
	44.00454	Creating and deleting snapshots	
	11:00AIVI – 11:45AM	Creating volumes from snapshots	
	11:45AM – 01:00PM	S3(Simple Storage Service)	
		Storage in Cloud	
		S3 durability and redundancy	
Day3	09:00AM – 09:45AM	S3 Buckets	
		S3 Uploading Downloading	
	09:45AM - 11.00AM	S3 Permissions	
	11:00AM – 11:45AM	S3 Object Versioning	
		S3 Lifecycle Policies	
	11.45444 01 0001	Storage Gateway	
	11:45AM – 01:00PM	Evaluation	
Day4	09:00AM – 09:45AM	Cloud Front	
	09:45AM - 11:00AM	Use of cloud front	
	11.00AIVI - 11.45AIVI	Creating a cloud front distribution	
	11:45AM – 01:00PM	Hosting a website of cloud	
		front	
		distribution	
		implementing restrictions	

		Configuring origins and behaviors	
Day5	09:00AM – 09:45AM	Route53	
	00.45 414 11.00 414	Creating Zones	
	09.45AW - 11.00AW	Hosting a website	
	11:00AM – 11:45AM	Understanding routing policies	
		Weighted simple and failover policies	
		Identity Access Management (IAM)	
		Creating Users and Groups	
	11.45454 01.00514	Password Policy	
Wook13		Revision & Motivational Talk	Lah Task will be assigned to
WEEKIS	Avv3 basic	Roles	individual candidate and
	Security	AWS Security Management	outputs will be checked by
	AWS VPC and	Security	instructor and TA's.
	DATABASE	Practices for Cloud	
		Deployment	
		AWS Responsibilities and Securities	
		Cloud Trail	
		Trust advisor	
		Amazon Virtual Drivata Claud (VDC)	
		Introduction to Amazon Virtual Private	
		Cloud (VPC)	
		VPC Advantages	
		Default and Non-default VPC	
		Components of VPC	
		Direct Connect	
		Amazon Virtual Private, Cloud	
		Amazon VPC, Private Subnet, and	
		Public Subnet	
		AWS Networking. Security Groups.	
		and Network ACLs	
		Configuration and management of	
		VPN connectivity	
		,	
		Subnet and Subnet Mask	
		Relational Database Service (RDS)	
		Different database services of AMS:	
		Amazon RDS Dynamo	
		DB. Redshift etc.	
		Configuring the database	
		Configuring backups	
		Connecting to the database	
		Dynamo DB	
		Creating a dynamo dB	
		Configuring alarms	
		Adding data manually	
	00.004145414	Success staries	1
Day1	09:00AIVI - 09:45AIVI	Success stones	

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	00.45454 11.00454	AWS Security Management	
	09:45AW - 11:00AW	Security	
	11:00AM – 11:45AM	Practices for Cloud	
		Deployment	
	11:45AM – 01:00PM		
		AWS Responsibilities and Securities	
		Cloud Trail	
		Trust advisor	
Day2	09:00AM – 09:45AM	Amazon Virtual Privato Cloud (VPC)	
		Anazon Virtual Private Cloud (VPC)	
	09:45AM – 11:00AM		
	11:00AM – 11:45AM	VPC Advantages	
		Default and Non-default VPC	
		Components of VPC	
	11·45ΔM - 01·00PM	Direct Connect	
Dav2	09:00 AM = 09:45 AM	Bayisian & Mativational Talk	
Days	09:45AM - 11:00AM	Describe create and manage	
		Amazon Virtual Private, Cloud	
	11:00AM – 11:45AM		
	11:45AM – 01:00PM	Amazon VPC. Private Subnet, and	
		Public Subnet	
		AWS Networking, Security Groups,	
		and Network ACLs	
		Configuration and management of	
		VPN connectivity	
		Evaluation	
Day4	09:00AM – 09:45AM		
		Subnet and Subnet Mask	
		Relational Database Service (RDS)	
		Introduction to RDS	
		Different database services of AWS:	
		Amazon RDS, Dynamo	
	09:45AM – 11:00AM	DB, Redshift etc.	
	11:00AM – 11:45AM		
	11·45ΔM - 01·00PM	Configuring the database	
		Configuring backups	
		Configuring the maintenance windows	
		Connecting to the database	
		Dynamo DB	
		Creating a dynamo dB	
		Configuring alarms	
		Adding data manually	
Day5	09:00AM – 01:00PM		
-			

Annexure I

Task No.	Task title	Description	Week
1	Cisco Binary Game		1
2	Link is given on Page4. Revise OSI and TCP/IP Models		
	Cloud subscriptions		

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		00 04 37 16 4 7 1 0000 0 0 0 0 0 0 0 1 5 0 0 0 1 0 2 1 0	
3	Solve IPv4 Addressing MCQs	PDF file will be given in the class containing 20	2
Δ	IPv6 Question will be given to	questions to practice IP addressing.	
-	identify their types	Creation of public accounts	
_	Candidates are required to	Managing cloud users	
5	identify types of MAC addresses in	Installation & Virtualization and Various	
	the class	Hypervisor Types	
	Creation of public accounts		
	Managing cloud users		
6	Basic Configuration	Configure and verify clock	3
7	Installation of ESXi	Configure and verify hostname.	
<i>/</i>	Configuring ESXi services	Configure and verify user access verification or	
8		login password	
9		Configure and verify enable password	
10		Configure and verify enable secret	
11		Learn how to modify, copy, write and erase	
12		Verify running-config and startun-config	
13		Create username, password and their privileges	
15		Configure banners:	
		motd	
		login	
		exec	
		Installation of ESXi	
		Configuring ESXi services	
14	Advanced Configurations	contigure and troubleshoot Ethernet and Serial	4
15	Of Cisco IOS and Huawei VRP	Interfaces.	
16	Create Centralized Storage vs.	Configure description on interfaces.	
17	Distributed Storage	Configure Keenalive clock rate and	
10		encapsulation on interfaces.	
10		Verify connectivity with test traffic.	
13		Use of ping command and understand output.	
20		Impact of round-trip time.	
21		Remote-access with TELNET and SSH.	
22		Configure DNS.	
23		Contigure DHCP on Cisco IOS and Huawei VRP Creat Centralized Storage vs. Distributed Storage	
24	Basic Routing	Configure next hop with:	5
 2E	Create Backup and restore Backup	Outgoing interface	
25		Next Hop IP address	
26		Configure and verify static routing for IPv4	
27		Configure and verify Default Routing. Configure and verify DHCP Relay Agent.	

		Create Backup and restore backup	
	Network Services and IOS	IOS and Configuration Backup with TFTP	6
28	Features	Configure and verify CDP	
20	Creating virtual machine, Clone &	Configure and verify LLDP	
29	templates	Configure and verify NTP: Network Time	
30		Protocol	
31		Password Recovery	
32		Configure and verify Embedded Event Manager:	
22			
24		Configure KRON Scheduler	
34		Configure and verify SYSLOG	
35		Creating virtual machine, clone & templates	
	IP Traffic Management & Security	Configure and verify standard ACL	7
26	On Cisco & Huawei	Configure and verify extended ACL	
50	Describe vSphere architecture &	Implement named and numbered ACL	
37	vSphere cluster	Configure and verify network address translation	
38		Configure and verify PAT/NAT-overloading	
39		Describe vSphere architecture & vSphere cluster	
40			
	Deep Dive into Dynamic Routing	Configure and verify single area OSPF.	8
/ 1	Creating & Managing Virtual	Design and implement multiple area OSPF.	
41	Machine in Azure Portal	Introduce and configure redistribution.	
42		Configure seed/external metric.	
43		Configure Type 1 and Type 2 seed metric.	
44		Configure Static routes with null-0 for testing.	
45		Creating & Managing Virtual Machine in Azure	
16		Portal	
40	OSPE & Policy Based Bouting		٥
47	Create azure firewall	Industry Scenario-1 to implement PBR	5
4/		Industry Scenario-2 to implement PBR	
48		Create azure firewall	
49	AWS login and feature explore	Create free login on	10
50		AWS Web Portal	
51	AW/S	Explore EC2 instance	
27	Operation on Portal	Explore EC2 Load	
52	Broject	Balancing on Amazon	
53	Project	Web portal Dynamic	
		scaling and policies of	
		autoscaling	
		as per instructor	
Г Л	AWS	Explore how to create delete Mounting and	11
54 	Storage Management	unmounting EBS	11
55	AWS Basic Security Features	volume. Practices on AWS Storage management.	
56	Create VPC and Database	Protect the cloud by implementing the different	
57	management	techniques, like Identity Access Management (IAM)	
58		Creating Users and Groups, Applying policies.	
59		Password Policy, Roles, AWS Security Management.	
60		Security Practices for	
61 62		Cloud Deployment and AWS Responsibilities and	
02		Securities.	

		Crete VPC Cloud on AWS and implement the all technique of database	
63 64 65 66 67 68 69	AWS Managerial tools Disaster Management Policies	Explore all management tools on by one in AWS Implement the different disaster management policies like How to manage Disaster Recovery and Backups, DR and Backups, AWS High Availability Design	12
70 71 72 73 74	Final project	Final project Assessment	13

Annexture II

SUGGESTIVE FORMAT AND SEQUENCE ORDER OF MOTIVATIONAL LECTURE.

Mentor

Mentors are provided an observation checklist form to evaluate and share their observational feedback on how students within each team engage and collaborate in a learning environment. The checklist is provided at two different points: Once towards the end of the course. The checklists are an opportunity for mentors to share their unique perspective on group dynamics based on various team activities, gameplay sessions, pitch preparation, and other sessions, giving insights on the nature of communication and teamwork taking place and how both learning outcomes and the student experience can be improved in the future.

Session-1 (Communication):

Please find below an overview of the activities taking place Session plan that will support your delivery and an overview of this session's activity.

Session-1 OVERVIEW
Aims and Objectives:
 To introduce the communication skills and how it will work
 Get to know mentor and team - build rapport and develop a strong sense of a team
 Provide an introduction to communication skills
 Team to collaborate on an activity sheet developing their communication, teamwork, and problem-solving
 Gain an understanding of participants' own communication skills rating at the start of the program

Activity:	Participant Time	Teacher Time	Mentor Time
Intro Attend and			
contribute to the			
scheduled.			

Understand good		
communication skills		
and how it works.		
Understand what		
good communication		
skills mean		
Understand what		
skills are important		
for good		
communication skills		
Key learning	Resources:	Enterprise skills
outcomes:		developed:
outcomes: Understand the	Podium	developed: Communication
Outcomes: Understand the communication	Podium Projector	 developed: Communication Self Confidence
outcomes: Understand the communication skills and how it	Podium Projector Computer	developed: Communication Self Confidence Teamwork
outcomes:Understand thecommunicationskills and how itworks.	Podium Projector Computer Flip Chart	developed: Communication Self Confidence Teamwork
outcomes:Understand thecommunicationskills and how itworks.Understand what	Podium Projector Computer Flip Chart Marker	developed: Communication Self Confidence Teamwork
outcomes:Understand thecommunicationskills and how itworks.Understand whatcommunication	Podium Projector Computer Flip Chart Marker	developed: Communication Self Confidence Teamwork
outcomes:Understand thecommunicationskills and how itworks.Understand whatcommunicationskills mean	Podium Projector Computer Flip Chart Marker	developed: Communication Self Confidence Teamwork
outcomes:Understand thecommunicationskills and how itworks.Understand whatcommunicationskills meanUnderstand what	Podium Projector Computer Flip Chart Marker	developed: Communication Self Confidence Teamwork
outcomes:Understand the communicationskills and how it works.Understand what communicationskills mean Understand what skills are important	Podium Projector Computer Flip Chart Marker	developed: Communication Self Confidence Teamwork
outcomes:Understand thecommunicationskills and how itworks.Understand whatcommunicationskills meanUnderstand whatskills are importantfor communication	Podium Projector Computer Flip Chart Marker	developed: Communication Self Confidence Teamwork

Schedule	Mentor Should do
Welcome:	Short welcome and ask the Mentor to introduce him/herself.
5 min	Provide a brief welcome to the qualification for the class.
	Note for Instructor: Throughout this session, please
	monitor the session to ensure nothing inappropriate is
	being happened.
Icebreaker:	Start your session by delivering an icebreaker, this will
10 min	enable you and your team to start to build rapport and
	create a team presentation for the tasks ahead.
	The icebreaker below should work well at introductions
	and encouraging communication, but feel free to use
	others if you think they are more appropriate. It is
	important to encourage young people to get to know
	each other and build strong team links during the first
	hour; this will help to increase their motivation and
	communication throughout the sessions.
Introduction & Onboarding:	Provide a brief introduction of the qualification to the
20mins	class and play the "Onboarding Video or Presentation".
	In your introduction cover the following:
	1. Explanation of the program and structure. (Kamyab
	2 How you will use your communication skills in your
	professional life
	3 Key contacts and key information – e.g. role of
	teacher mentor and SEED Policies and procedures
	(user agreements and "contact us" section) Everyone to
	go to the Group Rules tab at the top of their screen
	read out the rules, and ask everyone to verbally agree.

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	Ensure that the consequences are clear for using the
	platform outside of nours. (9am-8pm)
	4. what is up next for the next 2 weeks ahead so young
	people know what to expect (see pages 5-7 for an
	overview of the challenge). Allow young people to ask
	any questions about the session topic.
Team Activity Planning:	MENTOR: Explain to the whole team that you will now
30 minutes	be planning how to collaborate for the first and second
	collaborative Team Activities that will take place outside
	of the session. There will not be another session until
	the next session so this step is required because
	communicating and making decisions outside of a
	session requires a different strategy that must be
	agreed upon so that everyone knows what they are
	doing for this activity and how.
	"IDENTIFY ENTREPRENEURS" TEAM ACTIVITY
	"BRAINSTORMING SOCIAL PROBLEMS" TEAM ACTIVITY"
	As a team, collaborate on a creative brainstorm on social
	problems in your community. Vote on the areas you feel most
	passionate about as a team, then write down what change
	you would like to see happen.
	Make sure the teams have the opportunity to talk about how
	they want to work as a team through the activities e.g. when
	they want to complete the activities how to communicate
	the role of the project manager, etc. Make sure you allocate,
	the fole of the project manager, etc. Make sure you anotate
	each young person a specific week that they are the project
	manager for the weekly activities and make a note of this.
	Type up notes for their strategy if this is helpful - it can be
	included underneath the Team Contract.
Session Close:	MENTOR: Close the session with the opportunity for anyone
5 minutes	to ask any remaining questions.
	Instructor:
	Facilitate the wrap-up of the session. A quick reminder
	of what is coming up next and when the next session
	will be.

MOTIVATIONAL LECTURES LINKS:

TOPIC	SPEAKER	LINK
Senior	Ben Lovegrove	https://www.youtube.com/watch?v=ibju0yMiaQ0
Network		
Engineer		
Salary		
Interview Job		
Description		
Career		
Network	NetworkChuck	https://www.youtube.com/watch?v=443TT26w1LE
Engineers		
Meet	LifeAtGoogle	https://www.youtube.com/watch?v=pNyaPRFJ8IQ
Network		

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Engineers at		
Google		
How to Face Problems In Life	Qasim Ali Shah	https://www.youtube.com/watch?v=OrQte08MI90
Just Control Your Emotions	Qasim Ali Shah	https://www.youtube.com/watch?v=JzFs_yJt-w
How to Communicate Effectively	Qasim Ali Shah	https://www.youtube.com/watch?v=PhHAQEGehKc
Your ATTITUDE is Everything	Tony Robbins Les Brown David Goggins Jocko Willink Wayne Dyer Eckart Tolle	https://www.youtube.com/watch?v=5fS3rj6elFg
Control Your EMOTIONS	Jim Rohn Les Brown TD Jakes Tony Robbins	https://www.youtube.com/watch?v=chn86sH0O5U
Defeat Fear, Build Confidence	Shaykh Atif Ahmed	https://www.youtube.com/watch?v=s10dzfbozd4
Wisdom of the Eagle	Learn Kurooji	https://www.youtube.com/watch?v=bEU7V5rJTtw
The Power of ATTITUDE	Titan Man	https://www.youtube.com/watch?v=r8LJ5X2ejqU
STOP WASTING TIME	Arnold Schwarzenegger	https://www.youtube.com/watch?v=kzSBrJmXqdg
Risk of Success	Denzel Washington	https://www.youtube.com/watch?v=tbnzAVRZ9Xc

Annexure III

SUCCESS STORY

S. No	Key Information	Detail/Description
1.	Self & Family background	 Danyal Saleem, who lives in Mirpur (AJK), is an example of how hard work and perseverance can reap rich rewards when bidding for projects online. The graphic designer works exclusively on an online freelancing platform and has earned, on average, US\$20,000 per month for the past several months. But this isn't a story of overnight success – Danyal has had to work hard to differentiate himself and stay true to his goal.

		It was a full year later, in May 2017, when Danyal finally decided to jump in. He signed up for one of the numerous sites that connect designers or coders with people or companies that have small projects, like designing a logo or building a website. He had already started a small business to help pay for his college education, so he was nervous and apprehensive about the decision. "I gave myself two or three months at most. If I didn't succeed, then I would go back to running the business as it was showing potential," he says. If at first, you don't succeed, try try again
2.	How he came on board NAVTTC Training/ or got trained through any other source	Certification in graphic designing from STEPS(NAVTTC partner institute)
3.	Post-training activities	Danyal's area of expertise is in graphic design . In his first month using Fiverr, he pitched mostly for projects centered around logo designing. But it wasn't so simple. In the first few weeks, he didn't hear back from even a single client, despite pitching for dozens of projects.
		"I needed to understand what worked, so I read blogs, participated in forums, and analyzed profiles of successful freelancers. It was an uphill struggle, but I didn't want to give up," he explains.
		Danyal says he understands why clients would be apprehensive giving projects to untested freelancers. They have hundreds of options to choose from, he explains, and to give a project to someone with no experience requires a strong leap of faith.
		A slow stream of projects started to come Danyal's way. Within a few months, he was landing an average of a hundred projects every month, with a large number of repeat clients. He also expanded the range of his professional services, branching out from logo design to business cards, banners, Facebook cover pages, letterheads, and stationery.
		But he's had to face his fair share of challenges too. The shoddy state of internet infrastructure in his city, Mirpur, threatened to derail his freelancing career. "Sometimes I haven't had connectivity for two days straight," he explains. "That's unthinkable for someone who makes his livelihood on the internet."

4.	Message to others	Take the training opportunity seriously Impose self-discipline and ensure regularity
	(under training)	Make Hard work pays in the end so be always ready for the same.

<u>Note:</u> Success story is a source of motivation for the trainees and can be presented in several ways/forms in a NAVTTC skill development course as under: -

- 1. To call a passed out successful trainee of the institute. He will narrate his success story to the trainees in his own words and meet trainees as well.
- 2. To see and listen to a recorded video/clip (5 to 7 minutes) showing a successful trainee Audio-video recording that has to cover the above-mentioned points.*
- **3.** The teacher displays the picture of a successful trainee (name, trade, institute, organization, job, earning, etc) and narrates his/her story in the teacher's own motivational words.

* The online success stories of renowned professional can also be obtained from Annex-II

Annexure IV

Workplace/Institute Ethics Guide

Work ethic is a standard of conduct and values for job performance. The modern definition of what constitutes good work ethics often varies. Different businesses have different expectations. Work ethic is a belief that hard work and diligence have a moral benefit and an inherent ability, virtue, or value to strengthen character and individual abilities. It is a set of values-centered on the importance of work and manifested by determination or desire to work hard.

The following ten work ethics are defined as essential for student success:

1. Attendance:

Be at work every day possible, plan your absences don't abuse leave time. Be punctual every day.

2. Character:

Honesty is the single most important factor having a direct bearing on the final success of an individual, corporation, or product. Complete assigned tasks correctly and promptly. Look to improve your skills.

3. Team Work:

The ability to get along with others including those you don't necessarily like. The ability to carry your weight and help others who are struggling. Recognize when to speak up with an idea and when to compromise by blend ideas together.

4. Appearance:

Dress for success set your best foot forward, personal hygiene, good manner, remember that the first impression of who you are can last a lifetime

5. Attitude:

Listen to suggestions and be positive, accept responsibility. If you make a mistake, admit it. Values workplace safety rules and precautions for personal and co-worker safety. Avoids unnecessary risks. Willing to learn new processes, systems, and procedures in light of changing responsibilities.

6. Productivity:

Do the work correctly, quality and timelines are prized. Get along with fellows, cooperation is the key to productivity. Help out whenever asked, do extra without being asked. Take pride in your work, do things the best you know-how. Eagerly focuses energy on accomplishing tasks, also referred to as demonstrating ownership. Takes pride in work.

7. Organizational Skills:

Make an effort to improve, learn ways to better yourself. Time management; utilize time and resources to get the most out of both. Take an appropriate approach to social interactions at work. Maintains focus on work responsibilities.

8. Communication:

Written communication, being able to correctly write reports and memos. Verbal communications, being able to communicate one on one or to a group.

9. Cooperation:

Follow institute rules and regulations, learn and follow expectations. Get along with fellows, cooperation is the key to productivity. Able to welcome and adapt to changing work situations and the application of new or different skills.

10.<u>Respect</u>:

Work hard, work to the best of your ability. Carry out orders, do what's asked the first time. Show respect, accept, and acknowledge an individual's talents and knowledge. Respects diversity in the workplace, including showing due respect for different perspectives, opinions, and suggestions.