International Summer School- Manipal University Jaipur [ISSMUJ]-2024

[Hybrid Mode]

Course Overview

Name of Course- Aws Essentials Cloud practitioner.

Name of Instructor: Dr. Suresh Kumar Jha

Session: June-July 2024

Language of instruction: English

Number of contact hours: 36

Credit awarded: 03

Pre-requisite: *Linux basic Commands, Operating system, Computer Network, Python basics*

(Candidates should have a basic understanding of IT services and their uses in the AWS Cloud platform).

Objective of Course/Project:

The AWS Essentials Cloud practitioner is intended for individuals who have the knowledge and skills necessary to effectively demonstrate an overall understanding of the AWS Cloud, independent of specific technical roles addressed by other AWS certifications (for example, Solutions Architect - Associate, Developer - Associate, or SysOps Administrator - Associate).

It validates an examinee's ability to:

• Define what the AWS Cloud is and the basic global infrastructure.

• Describe basic AWS Cloud architectural principles.

• Describe the AWS Cloud value proposition.

• Describe key services on the AWS platform and their common use cases (for example, compute and analytics)

• Describe basic security and compliance aspects of the AWS platform and the shared security model

• Define the billing, account management, and pricing models

• Identify sources of documentation or technical assistance (for example, whitepapers or support tickets)

• Describe basic/core characteristics of deploying and operating in the AWS Cloud.

Syllabus:

Domain 1: Cloud Concepts

Domain 2: Security

Domain 3: Technology

Domain 4: Billing and Pricing

Organization of Course

Total contact Hours: 36		
1st week:	8 hrs (classes)	8 hrs (Lecture/hands-on)
2nd week:	10hrs (classes)	10 hrs (Lecture/hands-on)
3rd week:	8hrs (classes)	8 hrs (Lecture/hands-on)
4th week:	10 hrs (Classes)	10 hrs (Lecture/hands-on)

Mode of lectures: Hybrid mode lecture/videos/case study/ discussion/ workshop/ hands-on

Course/Project Plan

Lecture no.	Topic	Lecture mode	Instructor
L: 1-3	What is Cloud computing, Different Types of Cloud computing, Aws cloud overview, Different cloud service provider AWS, Azure, Google cloud.	Lecture/hands-on	SKJ
L: 4-5	Shared responsibility model and AWS acceptable policy, IAM introduction	Lecture/hands-on	SKJ
L: 6-7	IAM policies, user groups, MFA overview, AWS access keys, CLI	Lecture/hands-on	SKJ
L: 8-9	CLI setup on windows and Linux, AWS cloud shell	Lecture/hands-on	SKJ
L: 10-11	IAM roles for AWS services, Security tools.	Lecture/hands-on	SKJ
L:12-13	EC-2 Basics, Security groups, SSH Overview, EC2 instance connect	Lecture/hands-on	SKJ
L:14-15	EC-2 Instance storage, AMI overview	Lecture/hands-on	SKJ
L: 15-19	S3 Bucket policy, S3 website overview, Cloud monitoring, SQS, SNS	Lecture/hands-on	SKJ
L:20-21	Database RDS, Dynamo DB,	Lecture/hands-on	SKJ
L: 22-25	VPC and Networking, Route53, Cloud front	Lecture/hands-on	SKJ

L: 26-30	Deployment and managing infrastructure at scale	Lecture/hands-on	SKJ
L: 31-34	Load balancing on AWS, Big data with AWS	Lecture/hands-on	SKJ
L: 35-36	AWS cloud practitioner exam preparation strategy and sample questions.	Lecture/hands-on	SKJ

Brief profile of the instructor with Photograph:

Dr. Suresh Kumar Jha is currently working as Assistant Professor (Sr. Scale), CCE department in Manipal University, Jaipur. He received his B.E (CSE) from Government Engineering College, Kota, and his M.Tech (CSE) from RTU, Kota. He has completed his Ph.D. from MBM University, Jodhpur, Rajasthan. His area of research is a multi-agent network, Consensus theory, Graph theory, Cloud computing and Distributed system. He has 08 year of teaching experience as well as 03 year of industry experience as Technology trainer and Technical Lead.