ASSIGNMENT

Topic :-

1. Introduction to the AWS Cloud
2. Job Roles in the Cloud

Submitted to

Navya mol K T

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Submitted by

Binisha C B

Roll no :33

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Introduction to the AWS Cloud

Cloud computing refers to the on demand delivery of IT resources and applications via the internet. With cloud computing , instead of having design and build our own data centers, we access data center and all of its resources, via the internet – allowing us to scale up or down based on our actual needs , without having to plan for the worst case scenario. With aws , we can access servers, databases, storage and high-level application components. AWS users can create send and manage resources in three unique ways : using the AWS management console , the AWS command line interface(AWS CLI) ,or the AWS software development kits(SDKS).The AWS Management console provides a graphical interface to access AWS features. The AWS CLI lets you control AWS services from the command line. AWS also provides SDK that enable you to access AWS using a variety of programming languages. The AWS CLI is an open-source tool that lets you interact with AWS services without having to do a lot of configuration. The AWS SDK and the supporting interfaces enable applications built on AWS to manage your infrastructure as a code. The concept of infrastructure as a code is powerful, disruptive. These language specific APIs allow you to easily incorporate the connectivity and the functionality of the wider range of AWS cloud services into your code without difficulty of writing functions yourself. AWS offers three different ways to create and manage AWS resources , the AWS CLI, the console, and the SDK.

Job roles in the cloud

More companies are seeing the value and benefit of moving to a cloud environment. The traditional on-premises model for managing IT applications and infrastructure is highly manual and often uses expensive equipment at less than full capacity. In contrast, an AWS Cloud environment helps businesses drive innovation because of its ability to increase development speed and provide near-limitless scale. And the speed, scale, innovation, and productivity benefits help businesses pursue bigger, broader digital opportunities, now and in the future. When an IT professional moves from an on-premises role to a cloud-based role, they will probably need to add specific cloud-based skills. There are 4 specific roles in the cloud : Cloud architect, System administrator, Security administrator, DevOps administrator.

Cloud architect

The Cloud Architect is responsible for delivering an overall cloud strategy and is in charge of the entire cloud environment. The Cloud Architect builds a business’s cloud architecture blueprint to deliver highly available, cost-efficient, and scalable cloud environments. This role supervises deployment in the cloud environment and application architecture for all aspects of the cloud. It is critical that a Cloud Architect is knowledgeable enough to be your business’s AWS Cloud subject matter expert and the go-to for anything related to the cloud.

System administrator

The System Administrator is responsible for overall performance of cloud systems. They are the glue that keeps systems working together by managing configurations, completing detailed tasks, and assisting Database Administrators with setting up database servers in the cloud. A System Administrator in the cloud maintains data integrity by deploying, configuring, and monitoring hybrid and cloud solutions instead of infrastructure performance and maintenance.

Security administrator

A Security Administrator must be someone that is trusted and exceptionally knowledgeable because they are responsible for the overall integrity, confidentiality, and protection of data and resources in the cloud.This role is a combination of reactive and proactive. While the Security Administrator does not need to know all of the details of cloud operations, they do define security requirements based on their company's security and regulatory requirements.

DevOps administrator

The DevOps Administrator optimizes the use of the AWS Cloud. They help businesses operate at a larger, faster scale by managing developers and orchestrating the numerous tools and stages in the pipeline. This role creates and maintains processes so that teams and developers can follow the model of small, rapid releases. To do this, this role manages the release cycle to ensure that there is enough pipeline to evaluate changes that need to be made, tested, and pushed to production.