Storage In The Cloud

1-How to configure, develop and maintain Security and Privacy in cloud?

ANS :

Security and privacy are maintained by applying clear controls and continuous oversight. This includes:
• Managing user identities with strong authentication and limited permissions.
• Protecting data through encryption in storage and during transfer.
• Using network safeguards such as firewalls and monitoring systems.
• Following regulatory requirements with documented policies and regular audits.
• Developing software securely through code reviews and vulnerability checks.
• Monitoring systems continuously and responding quickly to incidents.
• Reviewing configurations and conducting tests to ensure ongoing protection.

2-What is Portability in cloud?

ANS :

Portability is the ability to move applications or data from one cloud provider to another, or between cloud and local environments, with minimal modification. It depends on the use of open standards, containers, and non-proprietary tools.

3-What is Reliability and high Availability in cloud?

ANS :

eliability means that a cloud service performs correctly and consistently over time. High availability means that the service remains accessible with very limited downtime. These properties are achieved through redundant components, automatic failover, distributed deployment, and constant monitoring.

4-Describe Mobility Cloud Computing

ANS :

Mobility refers to the ability to access cloud services and data from different devices and locations. It provides a consistent experience across mobile phones, tablets, and computers by relying on online applications, synchronized data, and secure mobile connections.

5-Describe AWS, Azure, Google cloud Platforms

ANS :

Amazon Web Services: AWS is a cloud platform that offers a wide range of compute, storage, networking, database, analytics, and security services. It is known for its large global infrastructure, extensive service catalog, and strong support for scalable applications.

Microsoft Azure: Azure is a cloud platform that integrates closely with Microsoft products and services. It provides compute, storage, databases, artificial intelligence, analytics, and security services. It is widely used by organizations that rely on Windows Server, Active Directory, and Microsoft development tools.

Google Cloud Platform: Google Cloud provides compute, storage, machine learning, container management, analytics, and networking services. It is recognized for its strengths in data processing, artificial intelligence, and container technologies such as Kubernetes.

6-Accessing AWS, Azure and Google cloud Platforms (any one portal)

ANS :

Accessing a cloud platform portal (example: AWS Management Console)
To access the AWS Management Console, follow these steps:
• Open a web browser and navigate to the AWS console sign-in page.
• Enter your account credentials or use an identity provider if configured.
• After authentication, the console displays the dashboard with service categories such as compute, storage, networking, and security.
• Select any service to open its management interface, configure resources, and monitor usage.

7-Create compute, create network, create storage on AWS , Azure and GCP

ANS :

AWS
• Compute: Create an EC2 instance by selecting an Amazon Machine Image, choosing an instance type, configuring network settings, and launching the instance.
• Network: Create a Virtual Private Cloud, add subnets, route tables, security groups, and a gateway as required.
• Storage: Create an S3 bucket for object storage or create an EBS volume and attach it to an EC2 instance for block storage.

Azure
• Compute: Create a Virtual Machine by choosing an image, size, authentication method, and networking options.
• Network: Create a Virtual Network, define subnets, network security groups, and gateways as needed.
• Storage: Create a Storage Account and use services such as Blob Storage for objects or Managed Disks for virtual machines.

Google Cloud Platform
• Compute: Create a Compute Engine VM instance by selecting a machine type, image, region, and network configuration.
• Network: Create a Virtual Private Cloud network, add subnets, firewall rules, and routing configurations.
• Storage: Use Cloud Storage for objects or create Persistent Disks and attach them to Compute Engine instances for block storage.

8-Compare Cloud pricing of resources and services on all platform Amazon Web Services

ANS :

Cloud pricing varies based on compute type, storage class, network usage, region, and service category. The following points provide a general comparison pattern without quoting exact prices:

Amazon Web Services
AWS pricing is based on pay-as-you-go models across compute, storage, and networking. EC2 instances are priced by instance type, size, operating system, and region. S3 storage pricing varies by storage class, data volume, and request type. Network costs depend on data transfer direction and amount. AWS offers discounts through reserved instances, savings plans, and spot instances.

Microsoft Azure
Azure uses a similar consumption-based pricing model. Virtual Machines are charged based on size, region, and operating system. Storage pricing depends on performance tiers and redundancy options. Network prices apply mainly to outbound data. Azure provides discounts through reserved instances, hybrid licensing benefits, and spot virtual machines.

Google Cloud Platform
GCP offers per-second billing for compute instances and sustained use discounts applied automatically. Compute Engine pricing depends on machine family and region. Cloud Storage pricing varies by storage class and access frequency. Network pricing focuses on outbound data. Committed use contracts provide further discounts.