

SDP Day-7 Assignment

Please thoroughly review the AWS documentation to address questions covering all services. Responses should be paraphrased and reflect your understanding rather than copied from AI-generated, Google, or external sources. Failure to comply will ensure your assignment is valid.

1. What is the difference between Amazon S3 and Amazon EBS?

Ans Amazon S3 is an object storage service that allows you to store and retrieve data from anywhere on the web. EBS is a block-level storage that provides persistent block storage volumes that can be used for data storage

2. What are the key components of AWS Elastic Beanstalk?

simplifies the deployment and management of applications in the cloud

Elastic Beanstalk supports various deployment options

The application code and its supporting configuration are bundled into an application version, which can be deployed to the Elastic Beanstalk environment

3. How does Amazon Cloud Front improve website performance?

Delivers content to users with lower latency and higher data transfer speeds by reducing the physical distance the data needs to travel. websites can achieve faster content delivery

4. Explain the difference between Amazon RDS and Amazon DynamoDB.

Amazon RDS is a managed relational database service that supports various popular relational database engines

Amazon dynamoDB is a fully managed noSQL database service designed for fast and scalable performance in high traffic and large scale application environments.

5. How does AWS Lambda work?

It is a serverless compute service that allows users to run code without the need to provision or manage servers

users upload their source code, and Lambda takes care of all the necessary tasks to run and scale the code with high availability

6. What is the purpose of Amazon VPC?

It gives you full control over your virtual networking environment, including resource placement and security also provides cost saving

7. Explain the concept of high availability in AWS.

It offers data protection for all the legacy file data that businesses want to move to Amazon Web Services and also improves performance and reliability

8. What is AWS Cloud Formation?

AWS CloudFormation is a service that helps you model and set up your AWS resources so that you can spend less time managing those resources and more time focusing on your applications

9. How does AWS Auto Scaling work?

It adjusts the maximum capacity based on the traffic to the website which means it always provides optimal performance at lowest possible cost

10. What are the benefits of using AWS CloudFront over a traditional web server?
aws CloudFront provides lower latency which gives a quicker response to the users and also provides better reliability

11. What is the purpose of AWS Identity and Access Management (IAM)?

With IAM you can manage all permissions that control your access to AWS resources

12. What is the difference between Amazon SNS and Amazon SQS?

SNS is used for applications which require realtime notifications while SQS is used for sending storing and receiving messages

13. How does Amazon CloudWatch help in monitoring and troubleshooting AWS resources?

Amazon cloud watch collects and computes the performance metrics and it simplifies troubleshooting and monitoring

14. What is the purpose of Amazon Route 53?

Ensures reliable and efficient route for the user to the website it provides automatic scaling and also optimises performance

15. What are the different storage classes available in Amazon S3?

Amazon s3 standard

Amazon s3 intelligent-tiering
Amazon s3 glacier instant retrieval etc

16. How does AWS CloudTrail assist in auditing and compliance?

Customers can continuously monitor and check website activity to their it provides a detailed history to the api calls within the account

17. What is the purpose of AWS Direct Connect?

Provides a way to directly connect to aws services without connecting to internet

18. What is the concept of serverless computing in AWS?

It is a way of building and running applications without having to do server management which is done by aws itself

19. Explain the difference between horizontal and vertical scaling.

In horizontal scaling we add more nodes while in vertical scaling we add more power to the current machines

20. What are the key benefits of using AWS Lambda?

Users do not need to worry about server management
Automatic scaling helps the server scale according to traffic
Increased support for developers

21. What is the purpose of Amazon CloudWatch Logs?

Used for storing monitoring and accessing log files from amazon EC2

22. How does AWS Elastic Load Balancing (ELB) enhance application availability?

Automatically balances the incoming traffic by creating multiple targets and sending traffic to healthy targets only

23. What is AWS CloudWatch Events, and how does it work?

delivers a near real-time stream of system events that describe changes in the resources

24. What is AWS Elastic Beanstalk and how does it simplify application deployment?

It is a service for deploying and scaling web services and applications it simplifies deployment and makes application deployment easier

25. What are the benefits of using AWS CloudFormation templates?

Increases deployments speed of applications

Integrates services within the template

Easy updates and easy to manage changes

26. What is the purpose of AWS Step Functions?

Allows work flow automation without writing any code it also includes built in step function for efficient error Handling

27. What is the difference between Amazon EC2 and Amazon ECS?

Ec2 is a managed virtual machine while ecs streamlines deploying and scaling for the user

28. How does AWS KMS (Key Management Service) enhance data security?

provides confidentiality and integrity of keys by validating them under fips 140-2

29. What is the AWS Well-Architected Framework?

It provides concepts and design principals for designing and running optimal workloads for clouds

30. What is AWS Glue, and how does it simplify data preparation and ETL (Extract, Transform, Load)?

Aws glue is a serverless data integration service which allows user to prepare move and integrate data from multiple analytics easily