

NAME : _____

CLASS : _____

DATE : _____

1. What are characteristics of components in a microservice architecture? (Select THREE.)

☐

Hidden implementation

☐

HTTP(S) communication

☐

Specialised function

☐

Independence from other components

2. What is a container?

☐

A portable package of code and libraries

☐

A virtual storage location in the cloud

☐

An operating system that runs a virtual machine

☐

A method of operating system virtualisation

3. What is the most effective use of Amazon Elastic Container Service (Amazon ECS) when refactoring a monolithic application to use a microservice architecture?

☐

Refactor the application and centralise common functions to create a smaller code footprint.

☐

Create services that each provide a distinct function of the application, and run each service in a single container that ECS manages.

☐

Port the application to a new image and run it in a container that Amazon ECS manages.

☐

Create services that each provide a distinct function of the application, and run each service in a separate container that Amazon ECS manages.

4. What is AWS Fargate?

☐

A service that enables you to run containers without needing to manage servers or clusters

☐

A service that seamlessly extends AWS services to edge devices

☐

A tool for developing software that use field-programmable gate arrays (FPGA)

☐

A fully managed service for orchestrating container cluster

5. What is serverless architecture in AWS?

- | | |
|--|--|
| <input type="checkbox"/> An architecture where you do not provision or manage infrastructure | <input type="checkbox"/> An architecture that only uses managed services |
| <input type="checkbox"/> An architecture that uses microservices instead of monolithic servers | <input type="checkbox"/> An architecture that does not use any on-premises servers |

6. What are benefits of serverless computing in Amazon AWS? (Select THREE.)

- | | |
|---|---|
| <input type="checkbox"/> Lower total cost of ownership | <input type="checkbox"/> Ability to build microservice applications |
| <input type="checkbox"/> Less complicated software architecture | <input type="checkbox"/> More focus on the application |

7. How can you scale AWS Lambda functions to ensure high availability?

- | | |
|---|---|
| <input type="checkbox"/> Do nothing special because functions scale automatically | <input type="checkbox"/> Enable automatic scaling in the function |
| <input type="checkbox"/> Launch functions in Auto Scaling groups | <input type="checkbox"/> Provision enough function instances to meet the maximum predicted load |

8. An environmental science organisation wants to provide HTTPS read-only access to its sensors and databases to any users around the world. The goal is enabling users to create their own custom real-time data visualisations to help improve climate science. Which solution is efficient and secure?

- | | |
|---|--|
| <input type="checkbox"/> Create a public interface to the sensors and database by using Amazon API Gateway. | <input type="checkbox"/> Create web proxy servers on Amazon EC2 instances in an Auto Scaling group, which is served by an ELB. |
| <input type="checkbox"/> Create user accounts in the organisations' system to allow access. | <input type="checkbox"/> Create a microservices architecture by using Amazon ECS. |

9. Which workloads are supported by AWS Step Functions? (Select THREE.)

- | | |
|---|---|
| <input type="checkbox"/> Deploy different kinds of infrastructure that are based on variables | <input type="checkbox"/> Update inventory and initiate shipment when a customer purchases an item on an e-commerce site |
| <input type="checkbox"/> Coordinate multi-step analytics and machine learning workflows | <input type="checkbox"/> Consolidate data from multiple databases when the costs for an AWS account exceed a threshold |

10. What is a serverless solution for creating a simple web form?

☐ Host website assets in a container in an Amazon ECS cluster, use an Amazon DynamoDB table, and use server-side scripts to interact with the database.

☐ Host static assets in Amazon S3 bucket, use Amazon DynamoDB table, and use Amazon API Gateway and AWS Lambda functions to interact with the database.

☐ Host static assets in an Amazon S3 bucket, use an Amazon RDS database, and use Amazon API Gateway and AWS Lambda functions to interact with the database.

☐ Host website assets in a container in an Amazon ECS cluster, use an Amazon RDS database, and use server-side scripts to interact with the database.