Dashboard (http://kmitonline.com/student/dashboard.php) / Quiz

Started on	Tuesday, 16 September 2025, 12:27 PM
State	Finished
Completed on	Tuesday, 16 September 2025, 12:32 PM
Time taken	5 mins
Marks	3.00/3.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1

Complete

Mark 1.00 out of 1.00

A company is deploying a new application on AWS. The architecture has three different storage

requirements:

1. The application's relational database needs low-latency block storage that persists even if the EC2 instance is stopped.

2. The application servers (multiple EC2 instances in an Auto Scaling Group) must share access to the same files (images, configs) with POSIX file system semantics.

3. The company also needs a place to store backups, logs, and large media files that should be durable, cost-effective, and accessible from anywhere over the internet.

Which combination of AWS storage services best fits these requirements?

Select one:

- ○ **a. Use only S3 for all three use cases since it is scalable and durable**
- ○ **b. S3 for the database, EBS for shared files, EFS for backups/logs/media**
- ⦿ **c. EBS for the database, EFS for shared files, S3 for backups/logs/media**
- ○ **d. EFS for the database, S3 for shared files, EBS for backups/logs/media**

Version 4.2

Question
2

Complete

Mark 1.00 out of
1.00

A company is building a cloud-native application on AWS with the following requirements:

1. The application will consist of 10+ microservices, each packaged as a Docker container.

2. Developers want to use service mesh features (like Istio) for advanced traffic routing, observability, and security.

3. The company plans to remain cloud-agnostic, since some workloads may later move to Azure or on-prem Kubernetes clusters.

4. The team prefers managed control plane services to reduce operational overhead.

Which AWS service is the best fit for orchestrating these containers?

Select one:

   ○ **a.**
      AWS Lambda – serverless, event-driven compute

   ○ **b.**
      ECS on EC2 – managed container orchestration on self-managed EC2 cluster

   ○ **c.**
      ECS on Fargate – fully managed, simple container orchestration

   ◉ **d.**
      EKS (Elastic Kubernetes Service) – managed Kubernetes with AWS integration

Question 3

Complete

Mark 1.00 out of 1.00

A startup is deploying their web application. The requirements are:

1. The frontend is a React single-page app (SPA) that must be served quickly worldwide.

2. The backend is a Node.js API running on port 5000.

3. The app must support high traffic spikes, and requests should be load balanced across multiple backend servers.

4. The team wants to offload SSL/TLS termination to avoid configuring certificates on each backend server.

Which Nginx configuration role best satisfies all these requirements?

Select one:

○ **a.**
Deploy Node.js directly with no Nginx, since Node can serve both API and frontend files

○ **b.** Use Nginx only as a static file server for the React app

◉ **c.**
Use Nginx as a reverse proxy + load balancer + SSL terminator in front of the Node.js backend and as a static server for the React app

○ **d.** Use Nginx only as a caching layer for the Node.js API responses