

CERT-PASS

AWS AWS Certified Developer – Associate DVA-C02

Free Practice Questions Preview

Here are 35 sample questions to help you get started. Unlock the full exam to access all 1040+ questions with detailed explanations.

Question 1 : Content Domain 1: Development with AWS Services

The team is reducing operational risk in a mobile backend deployed to eu-west-1. Multiple consumers must react to the same business event, and producers must not know which consumers exist. Rules need to route events by attributes. Which solution is MOST appropriate?

- A. Write each event to an Amazon RDS table and require every consumer to poll the table.
- B. Place every consumer behind one Amazon API Gateway endpoint and invoke them sequentially.
- C. Send synchronous HTTP requests from the producer to every consumer.
- D. Publish events to Amazon EventBridge and configure event-bus rules for the consumers.

Answer: D

EventBridge supports loosely coupled event-driven routing with rules that match event attributes. The strongest distractor is 'Send synchronous HTTP requests from the producer to every consumer.', but it fails because it couples producer availability and latency to every consumer.

Question 2 : Content Domain 2: Security

A manufacturing company is preparing a change to the catalog API that handles a bursty evening workload. Code running on Amazon EC2 needs to read objects from one S3 bucket. The team must avoid long-lived credentials in the instance. What is the BEST solution?

- A. Store an IAM user's access key in a configuration file on the instance.
- B. Store an IAM user's access key in an encrypted environment variable on the instance.
- C. Attach an IAM role to the EC2 instance and grant the required S3 permissions.
- D. Create a shared IAM user and rotate its access key manually.

Answer: C

An EC2 IAM role supplies temporary credentials to the workload without embedding static keys. The strongest distractor is 'Store an IAM user's access key in an encrypted environment variable on the instance.', but it fails because long-lived credentials increase exposure and rotation risk.

Question 3 : Content Domain 3: Deployment

A developer is implementing a change for a IoT analytics provider's image-processing pipeline. A Lambda function is deployed as a ZIP archive and imports third-party libraries at startup. What must the artifact contain unless the libraries are supplied by a compatible layer?

- A. Upload only the handler file and install dependencies after every invocation.
- B. Include the handler code and required dependencies in the deployment ZIP file.**
- C. Attach an SQS queue containing the package manifest.
- D. Store dependencies in CloudTrail event history.

Answer: B

ZIP-based Lambda deployments need the handler and required runtime dependencies unless compatible libraries are supplied elsewhere, such as through layers. The strongest distractor is 'Attach an SQS queue containing the package manifest.', but it fails because SQS is a queue and does not by itself provide the requested API, orchestration, or configuration capability.

Question 4 : Content Domain 4: Troubleshooting and Optimization

A compliance and reliability review covers the healthcare SaaS provider's document upload service. The team needs to search CloudWatch Logs for the most frequent errorCode values during the last hour. Which tool should be used?

- A. Download log streams manually and search each file locally.
- B. Run a CloudWatch Logs Insights query over the relevant log groups.**
- C. Create a metric filter for one fixed pattern instead of running an ad hoc Logs Insights query.
- D. Use CloudTrail event history to aggregate application errorCode fields.

Answer: B

CloudWatch Logs Insights is designed for interactive querying and aggregation of log data. The strongest distractor is 'Download log streams manually and search each file locally.', but it fails because manual changes create drift and are harder to test and reproduce.

Question 5 : Content Domain 1: Development with AWS Services

An application team operates the shipment-status API in the staging environment. Billing, analytics, and email workers must process each order independently. Every worker needs durable buffering and its own retry behavior. What should the developer implement?

- A. Create one Amazon EventBridge scheduled rule for each worker to poll the producer.
- B. Send every order to one shared Amazon SQS standard queue.
- C. Invoke the three workers sequentially from the order service.
- D. Publish to an Amazon SNS topic with a separate Amazon SQS queue subscription for each worker.**

Answer: D

SNS fanout with individual SQS queues lets each consumer receive every event while retaining independent buffering and retries. The strongest distractor is 'Invoke the three workers sequentially from the order service.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 6 : Content Domain 2: Security

After a recent load test, the team evaluates a event-processing application. A Lambda function needs to write CloudWatch logs and read from one DynamoDB table. Which permissions model should be used?

- A. Grant the function full access to every DynamoDB table.
- B. Assign a least-privilege Lambda execution role with the required logging and DynamoDB permissions.**
- C. Create an IAM user for each function invocation.
- D. Embed administrator access keys in Lambda environment variables.

Answer: B

A Lambda execution role provides temporary credentials and should grant only the permissions the function requires. The strongest distractor is 'Create an IAM user for each function invocation.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 7 : Content Domain 3: Deployment

An application team operates the partner API in the staging environment. A team needs isolated feature development and traceable release versions in its source repository. Which practice is MOST appropriate?

- A. Use IAM user names as release versions.
- B. Store source files only in Lambda environment variables.
- C. Commit every change directly to an undocumented production branch.
- D. Use branches for isolated work and version tags or labels for approved releases.**

Answer: D

Branches and release tags improve isolation, traceability, and controlled promotion. The strongest distractor is 'Commit every change directly to an undocumented production branch.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 8 : Content Domain 4: Troubleshooting and Optimization

A developer is implementing a change for a customer-support platform's checkout API. Operations needs one view of Lambda errors, duration, throttles, and downstream latency. Which service feature should be configured?

- A. Rely on separate service consoles without a consolidated view.
- B. Create a CloudTrail trail and use it as the operational dashboard.
- C. Export metrics to local files and review them manually during incidents.
- D. Create a CloudWatch dashboard with the relevant metrics.**

Answer: D

CloudWatch dashboards provide a consolidated view of operational metrics. The strongest distractor is 'Create a CloudTrail trail and use it as the operational dashboard.', but it fails because CloudTrail is useful for API auditing, not as the requested runtime, test, or performance mechanism.

Question 9 : Content Domain 1: Development with AWS Services

An application team operates the analytics ingestion pipeline in the staging environment. An Amazon SQS consumer sometimes needs 2 minutes to process a message. The same message becomes visible and is processed by another worker before the first worker finishes. What should be changed first?

- A. Reduce the queue's long-poll wait time.
- B. Set the visibility timeout longer than normal processing time and extend it when necessary.**
- C. Increase the queue message-retention period.
- D. Configure a smaller maximum message size.

Answer: B

The visibility timeout hides an in-flight message from other consumers while processing continues. The strongest distractor is 'Configure a smaller maximum message size.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 10 : Content Domain 2: Security

A compliance and reliability review covers the ticketing platform's customer-profile service. A consumer mobile application needs managed user sign-up, sign-in, password recovery, and tokens for its backend API. Which service should be used?

- A. Store plaintext passwords in DynamoD
- B. B. Use AWS STS without an identity provider as the user directory.
- C. Use an Amazon Cognito user pool.**
- D. Create an IAM user for every mobile application user.

Answer: C

Cognito user pools provide managed application-user authentication and token issuance. The strongest distractor is 'Create an IAM user for every mobile application user.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 11 : Content Domain 3: Deployment

A developer is implementing a change for a IoT analytics provider's support-ticket service. Automated integration tests call a paid third-party API and frequently fail because the provider is unavailable. What should the team do?

- A. Remove all failure-path tests.
- B. Mock the external API for repeatable integration tests and retain a smaller controlled end-to-end test set.**
- C. Log the production API key in test output for reuse.
- D. Call the production dependency from every unit test.

Answer: B

Mocking external dependencies makes automated testing deterministic while targeted end-to-end tests still validate real integration. The strongest distractor is 'Remove all failure-path tests.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 12 : Content Domain 4: Troubleshooting and Optimization

After a recent load test, the team evaluates a inventory service. Developers need to query errors by requestId, tenantId, and errorCode. Which logging format is BEST?

- A. Emit only aggregate metrics and omit per-request diagnostic context.
- B. Write separate uncorrelated log lines for each field value.
- C. Emit structured JSON logs with consistent fields and correlation identifiers.**
- D. Write free-form messages with inconsistent field names and no request identifier.

Answer: C

Structured logs make application events searchable and correlatable. The strongest distractor is 'Write separate uncorrelated log lines for each field value.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 13 : Content Domain 1: Development with AWS Services

A B2B marketplace is preparing a change to the report-generation workflow that handles a bursty evening workload. A small number of malformed Amazon SQS messages fail repeatedly and consume worker capacity. The team must isolate them for later investigation. What should be configured?

- A. Increase the visibility timeout indefinitely.
- B. Disable all retries and delete every failed message immediately.
- C. Replace the SQS queue with an Amazon SNS topic only.
- D. Configure a dead-letter queue with an appropriate maximum receive count.**

Answer: D

A dead-letter queue isolates poison messages after repeated failures while preserving them for investigation. The strongest distractor is 'Increase the visibility timeout indefinitely.', but it fails because changing a timeout alone does not correct the underlying architectural or performance issue.

Question 14 : Content Domain 2: Security

The learning platform engineering team is updating its notification service. A function only needs to read objects under s3://reports-bucket/daily/. Which policy is MOST appropriate?

- A. Allow s3:PutObject and s3:DeleteObject on the reports bucket.
- B. Allow s3:GetObject only for objects under the daily prefix in the reports bucket.**
- C. Allow s3:* on every bucket in the account.
- D. Allow AdministratorAccess for the function.

Answer: B

Least privilege grants the narrowest required action and resource scope. The strongest distractor is 'Allow AdministratorAccess for the function.', but it fails because broad permissions violate least privilege.

Question 15 : Content Domain 3: Deployment

The learning platform engineering team is updating its subscription-renewal worker. A team needs repeatable automated tests for an API Gateway and Lambda integration. What should the test suite include?

- A. Include representative request and event payloads for normal, edge, and error cases.
- B. Use only one successful production request captured months ago.
- C. Test only the Lambda timeout value.
- D. Create a new IAM user for every test case.

Answer: A

Representative payloads let automated tests cover expected behavior, edge cases, and failures. The strongest distractor is 'Create a new IAM user for every test case.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 16 : Content Domain 4: Troubleshooting and Optimization

A developer is reviewing the account-registration service used by a healthcare SaaS provider. Operations must be notified when a Lambda function's error rate crosses a defined threshold. What should be configured?

- A. Publish an SNS notification from application code for every request without evaluating a threshold.
- B. Create a CloudWatch alarm on the relevant metric and route notifications through Amazon SNS.
- C. Create a CloudWatch dashboard only and rely on manual observation.
- D. Write the threshold to a log message and review it after incidents.

Answer: B

CloudWatch alarms evaluate metrics and can publish notifications through SNS. The strongest distractor is 'Publish an SNS notification from application code for every request without evaluating a threshold.', but it fails because SNS is pub/sub fanout and does not by itself provide the required durable per-consumer queue behavior.

Question 17 : Content Domain 1: Development with AWS Services

The team is reducing operational risk in a tenant-management API deployed to us-east-1. A Python application needs to call DynamoDB while using standard credential resolution, request signing, and service error handling. What should the developer use?

- A. Construct and sign raw HTTP requests manually for every DynamoDB call.
- B. Invoke the AWS CLI from the application process for every request.
- C. Use the AWS SDK for the application's programming language.
- D. Use a generic HTTP library without AWS credential-provider integration.

Answer: C

AWS SDKs provide credential resolution, SigV4 signing, and service-specific clients. The strongest distractor is 'Invoke the AWS CLI from the application process for every request.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 18 : Content Domain 2: Security

The subscription service engineering team is updating its content-publishing workflow. A public web API must protect data while it travels between clients and the endpoint. Which control addresses this requirement?

- A. Base64-encode the JSON request body.
- B. Enable only server-side encryption for the backend database.
- C. Expose the API through HTTPS with TLS and an appropriate certificate.**
- D. Increase the API Gateway throttling limit.

Answer: C

TLS protects data in transit; encryption at rest protects stored data. The strongest distractor is 'Increase the API Gateway throttling limit.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 19 : Content Domain 3: Deployment

After a recent load test, the team evaluates a order workflow. A developer wants assistance generating candidate automated tests for existing code and will review and execute the output. Which tool is appropriate?

- A. Use Amazon Q Developer to generate candidate tests, then review and run them.**
- B. Use CloudWatch alarms to create test assertions automatically.
- C. Use API Gateway access logs as the only source of test cases.
- D. Use CodeDeploy deployment hooks as the unit-test generator.

Answer: A

Amazon Q Developer can assist with test generation, but developers must still review and execute the tests. The strongest distractor is 'Use CodeDeploy deployment hooks as the unit-test generator.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 20 : Content Domain 4: Troubleshooting and Optimization

The digital publisher engineering team is updating its payment worker. The team needs to search CloudWatch Logs for the most frequent errorCode values during the last hour. Which tool should be used?

- A. Download log streams manually and search each file locally.
- B. Use CloudTrail event history to aggregate application errorCode fields.
- C. Create a metric filter for one fixed pattern instead of running an ad hoc Logs Insights query.
- D. Run a CloudWatch Logs Insights query over the relevant log groups.**

Answer: D

CloudWatch Logs Insights is designed for interactive querying and aggregation of log data. The strongest distractor is 'Use CloudTrail event history to aggregate application errorCode fields.', but it fails because CloudTrail is useful for API auditing, not as the requested runtime, test, or performance mechanism.

Question 21 : Content Domain 1: Development with AWS Services

During a production review of a mobile backend, a developer identifies a new requirement. A developer wants context-aware assistance while writing AWS SDK code and generating candidate unit tests. The developer will review and run the suggestions before committing them. Which tool is appropriate?

- A. AWS CodeDeploy
- B. Amazon Inspector
- C. AWS CloudTrail
- D. Amazon Q Developer**

Answer: D

Amazon Q Developer can assist with development tasks, including code and test generation, while developers remain responsible for review. The strongest distractor is 'Amazon Inspector', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 22 : Content Domain 2: Security

The catalog API serves unpredictable promotional spikes for a B2B marketplace. An application uses database credentials that must be stored securely and rotated automatically. Which service is the BEST fit?

- A. Store the password in a public S3 object.
- B. Commit an encrypted-looking password string to the source repository and never rotate it.
- C. Hard-code the password in the Lambda deployment package.
- D. Store the credentials in AWS Secrets Manager and configure rotation.**

Answer: D

Secrets Manager is purpose-built for secret storage and managed rotation workflows. The strongest distractor is 'Hard-code the password in the Lambda deployment package.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 23 : Content Domain 3: Deployment

A travel marketplace is preparing a change to the image-processing pipeline that handles unpredictable promotional spikes. The CI workflow must compile code, run unit tests, and produce an artifact from commands in a build specification. Which service should perform the work?

- A. AWS CodeBuild**
- B. AWS CodePipeline
- C. AWS CloudTrail
- D. AWS CodeDeploy

Answer: A

CodeBuild executes build commands in managed environments and can create artifacts. The strongest distractor is 'AWS CodePipeline', but it fails because it addresses a related concern but does not satisfy the scenario's primary

requirement.

Question 24 : Content Domain 4: Troubleshooting and Optimization

During a production review of a document upload service, a developer identifies a new requirement. Operations needs one view of Lambda errors, duration, throttles, and downstream latency. Which service feature should be configured?

- A. Rely on separate service consoles without a consolidated view.
- B. Export metrics to local files and review them manually during incidents.
- C. Create a CloudTrail trail and use it as the operational dashboard.
- D. Create a CloudWatch dashboard with the relevant metrics.**

Answer: D

CloudWatch dashboards provide a consolidated view of operational metrics. The strongest distractor is 'Export metrics to local files and review them manually during incidents.', but it fails because manual changes create drift and are harder to test and reproduce.

Question 25 : Content Domain 1: Development with AWS Services

After a recent load test, the team evaluates a shipment-status API. A CPU-bound Lambda function consistently runs too slowly. The code cannot be changed immediately. Which configuration should the developer benchmark first?

- A. Add more environment variables.
- B. Reduce the ephemeral storage setting.
- C. Increase only the function timeout.
- D. Increase the Lambda memory setting and compare duration and cost.**

Answer: D

Lambda CPU capacity scales with memory allocation, so testing memory levels can improve CPU-bound performance. The strongest distractor is 'Increase only the function timeout.', but it fails because changing a timeout alone does not correct the underlying architectural or performance issue.

Question 26 : Content Domain 2: Security

During a production review of a event-processing application, a developer identifies a new requirement. A log payload contains full customer names, email addresses, and government identifiers. What should the team do before expanding log access?

- A. Classify the fields as sensitive data and define masking, access, and retention controls.**
- B. Publish the raw log data to a public dashboard.
- C. Treat every field as non-sensitive because the log group is private.
- D. Disable authentication for analysts to simplify access.

Answer: A

Data classification determines the protection, access, masking, and retention controls required for sensitive values. The strongest distractor is 'Publish the raw log data to a public dashboard.', but it fails because making a resource public expands exposure instead of applying narrowly scoped access.

Question 27 : Content Domain 3: Deployment

During a production review of a partner API, a developer identifies a new requirement. A source change should trigger build, test, approval, and deployment stages. Which service should orchestrate the stages?

- A. AWS CodePipeline**
- B. AWS CodeDeploy only
- C. Amazon CloudWatch Logs
- D. AWS CodeBuild only

Answer: A

CodePipeline orchestrates multi-stage release workflows while specialized services perform individual actions. The strongest distractor is 'Amazon CloudWatch Logs', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 28 : Content Domain 4: Troubleshooting and Optimization

A media service runs a checkout API in us-west-2. Developers need to query errors by requestId, tenantId, and errorCode. Which logging format is BEST?

- A. Emit only aggregate metrics and omit per-request diagnostic context.
- B. Write free-form messages with inconsistent field names and no request identifier.
- C. Write separate uncorrelated log lines for each field value.
- D. Emit structured JSON logs with consistent fields and correlation identifiers.**

Answer: D

Structured logs make application events searchable and correlatable. The strongest distractor is 'Write free-form messages with inconsistent field names and no request identifier.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 29 : Content Domain 1: Development with AWS Services

Before the next release, a insurance portal must improve its analytics ingestion pipeline. Several Lambda functions use the same compatible utility library. The team wants to avoid packaging the library separately in every ZIP file. What should be used?

- A. Place the shared library in a Lambda layer and attach the layer to the functions.**
- B. Download the library from S3 during every invocation.
- C. Package a duplicate copy of the shared library in every function ZIP file.

D. Copy the utility code into every handler and manage each copy independently.

Answer: A

Lambda layers are designed to share compatible libraries and runtime components across functions. The strongest distractor is 'Download the library from S3 during every invocation.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 30 : Content Domain 2: Security

The team is reducing operational risk in a customer-profile service deployed to eu-central-1. Code running on Amazon EC2 needs to read objects from one S3 bucket. The team must avoid long-lived credentials in the instance. What is the BEST solution?

A. Attach an IAM role to the EC2 instance and grant the required S3 permissions.

B. Store an IAM user's access key in an encrypted environment variable on the instance.

C. Store an IAM user's access key in a configuration file on the instance.

D. Create a shared IAM user and rotate its access key manually.

Answer: A

An EC2 IAM role supplies temporary credentials to the workload without embedding static keys. The strongest distractor is 'Create a shared IAM user and rotate its access key manually.', but it fails because long-lived credentials increase exposure and rotation risk.

Question 31 : Content Domain 3: Deployment

During a production review of a support-ticket service, a developer identifies a new requirement. A Lambda function is deployed as a ZIP archive and imports third-party libraries at startup. What must the artifact contain unless the libraries are supplied by a compatible layer?

A. Include the handler code and required dependencies in the deployment ZIP file.

B. Store dependencies in CloudTrail event history.

C. Attach an SQS queue containing the package manifest.

D. Upload only the handler file and install dependencies after every invocation.

Answer: A

ZIP-based Lambda deployments need the handler and required runtime dependencies unless compatible libraries are supplied elsewhere, such as through layers. The strongest distractor is 'Upload only the handler file and install dependencies after every invocation.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 32 : Content Domain 4: Troubleshooting and Optimization

A compliance and reliability review covers the digital publisher's inventory service. Operations must be notified when a Lambda function's error rate crosses a defined threshold. What should be configured?

- A. Create a CloudWatch dashboard only and rely on manual observation.
- B. Create a CloudWatch alarm on the relevant metric and route notifications through Amazon SNS.**
- C. Publish an SNS notification from application code for every request without evaluating a threshold.
- D. Write the threshold to a log message and review it after incidents.

Answer: B

CloudWatch alarms evaluate metrics and can publish notifications through SNS. The strongest distractor is 'Create a CloudWatch dashboard only and rely on manual observation.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 33 : Content Domain 1: Development with AWS Services

A developer is implementing a change for a customer-support platform's report-generation workflow. A DynamoDB table uses `CustomerId` as the partition key and `CreatedAt` as the sort key. The application needs one customer's most recent records. Which operation should the code use?

- A. Use `Scan` with a filter expression for `CustomerId`.
- B. Use `Query` with `CustomerId` and an appropriate sort-key condition.**
- C. Use `BatchWriteItem` with a condition expression.
- D. Use `ListTables` and filter the response.

Answer: B

`Query` uses the partition key and optional sort-key conditions to read the required item collection efficiently. The strongest distractor is 'Use `ListTables` and filter the response.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

Question 34 : Content Domain 2: Security

A document-processing company runs a notification service in `us-east-1`. A Lambda function needs to write CloudWatch logs and read from one DynamoDB table. Which permissions model should be used?

- A. Grant the function full access to every DynamoDB table.
- B. Create an IAM user for each function invocation.
- C. Embed administrator access keys in Lambda environment variables.
- D. Assign a least-privilege Lambda execution role with the required logging and DynamoDB permissions.**

Answer: D

A Lambda execution role provides temporary credentials and should grant only the permissions the function requires. The strongest distractor is 'Embed administrator access keys in Lambda environment variables.', but it fails because long-lived credentials increase exposure and rotation risk.

Question 35 : Content Domain 3: Deployment

A developer is implementing a change for a fintech company's subscription-renewal worker. A team needs isolated feature development and traceable release versions in its source repository. Which practice is MOST appropriate?

- A. Store source files only in Lambda environment variables.
- B. Use branches for isolated work and version tags or labels for approved releases.**
- C. Use IAM user names as release versions.
- D. Commit every change directly to an undocumented production branch.

Answer: B

Branches and release tags improve isolation, traceability, and controlled promotion. The strongest distractor is 'Use IAM user names as release versions.', but it fails because it addresses a related concern but does not satisfy the scenario's primary requirement.

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