AWS DEVELOPMENT_TEST-2
SET-1

Instructions:

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1. A developer has created an AWS Lambda function that is written in Python. The Lambda function reads data from objects in Amazon S3 and writes data to an Amazon DynamoDB table. The function is successfully invoked from an S3 event notification when an object is created. However, the function fails when it attempts to write to the DynamoDB table. What is the MOST likely cause of this issue?   (C)

A. The Lambda function's concurrency limit has been exceeded.
B. DynamoDB table requires a global secondary index (GSI) to support writes.
C. The Lambda function does not have IAM permissions to write to DynamoDB.
D. The DynamoDB table is not running in the same Availability Zone as the Lambda function.

2. A developer wants to insert a record into an Amazon DynamoDB table as soon as a new file is added to an Amazon S3 bucket. Which set of steps would be necessary to achieve this? (B)

A. Create an event with Amazon Event Bridge that will monitor the S3 bucket and then insert the records intoDynamoDB.
B. Configure an S3 event to invoke an AWS Lambda function that inserts records into DynamoDB.
C. Create an AWS Lambda function that will poll the S3 bucket and then insert the records into DynamoDB.
D. Create a cron job that will run at a scheduled time and insert the records into DynamoDB.

3. A company is migrating legacy internal applications to AWS. Leadership wants to rewrite the internal employee directory to use native AWS services. A developer needs to create a solution for storing employee contact details and high-resolution photos for use with the new application. Which solution will enable the search and retrieval of each employee's individual details and high-resolution photos using AWS APIs?   (B)

A. Encode each employee's contact information and photos using Base64. Store the information in an Amazon DynamoDB table using a sort key.
B. Store each employee's contact information in an Amazon DynamoDB table along with the object keys for the photos stored in Amazon S3.
C. Use Cognito user pools to implement the employee directory in a fully managed method.
D. Store employee contact information in an Amazon RDS DB instance with the photos stored in Amazon Elastic File System (Amazon EFS)

4. Which of the following are benefits of migrating to the AWS Cloud?   (C)
A. Security   B. Increased staff retention   C. Business agility   D. Cost Explorer
5. What is the port number of Telnet?   (C)
A. 20   B. 21   C. 23   D.24   E.25   F.26

6. Which duties are the responsibility of a company that is using AWS Lambda? (B)
A. Security for code Test
B. Security inside of code
C. Security for Event bridge
D. Security for Product

7. A company is planning to deploy an application on AWS behind an Elastic Load Balancer. The application uses an HTTP/HTTPS listener and must access the client IP addresses. Which load-balancing solution meets these requirements? (A)

A. Use an Application Load Balancer and the X-Forwarded-For headers.
B. Use a Network Load Balancer (NLB). Enable proxy protocol support on the NLB and the target application.
C. Use an Application Load Balancer. Register the targets by the instance ID.

D. Use a Network Load Balancer and the X-Forwarded-For headers.

8. An application that is hosted on an Amazon EC2 instance needs access to files that are stored in an Amazon S3 bucket. The application lists the objects that are stored in the S3 bucket and displays a table to the user. During testing, a developer discovers that the application does not show any objects in the list. What is the MOST secure way to resolve this issue? (B)

A. Update the IAM instance profile that is attached to the EC2 instance to include the S3:* permission for the S3 bucket.
B. Update the IAM instance profile that is attached to the EC2 instance to include the S3:ListBucket permission for the S3 bucket.
C. Update the developer's user permissions to include the S3:ListBucket permission for the S3 bucket.
D. Update the S3 bucket policy by including the S3:ListBucket permission and by setting the Principal element to specify the account number of the EC2 instance.

9. Which AWS service or feature allows users to connect with and deploy AWS services programmatically? (D)
A. AWS Console   B. AWS Cloud9   C. Python (boto3)   D. AWS SDK's

10. A developer is building an application that uses Amazon DynamoDB. The developer wants to retrieve specific items from the database with a single API call. Which DynamoDB API call will meet these requirements with the MINIMUM impact on the database? (B)

A. PutItem   B. GetItem   C. Scan   D. Query

11. What is the use of ps command? (A)
A. check active process   B. Show container   C. Stop container   D. ALL

12. When using AWS Cloud9, which of the following services do you primarily need to pay for? (A)
A. EC2   B. Boto3   C. SDK's   D. IAM

13. Which AWS service is always provided at no charge? (C)
A. S3   B. EBS   C. IAM   D. ELB

14. Which of the following is a fully managed MySQL-compatible database? (D)
A. RDS   B. DynamoDB   C. Redshift   D. Aurora

15. Which option is a customer responsibility when using Amazon DynamoDB under the AWS Shared Responsibility Model? (C)
A. Physical security of DynamoDB   B. Create a DynamoDB Table
C. Access to DynamoDB tables   D. Encryption of data at rest in DynamoDB

AWS DEVELOPMENT_TEST-2
SET-2

NAME: DATE:

ROLL NO: MAX. MARKS: 20M

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3. A developer is designing an AWS Lambda function that creates temporary files that are less than 10 MB during invocation. The temporary files will be accessed and modified multiple times during invocation. The developer has no need to save or retrieve these files in the future. Where should the temporary files be stored?   (A)

A. /tmp directory   B. /etc/.ssh/tmp   C. /etc/user/   D. S3

4. A company is developing a mobile app that needs a high-performance NoSQL database. Which AWS services could the company use for this database? (Choose two.)   (D, E)

A. Amazon Aurora   B. Amazon RDS   C. Amazon Redshift
D. Amazon Document DB (with MongoDB compatibility)   E. Amazon DynamoDB

5. A developer is migrating some features from a legacy monolithic application to use AWS Lambda functions instead. The application currently stores data in an Amazon Aurora DB cluster that runs in private subnets in a VPC. The AWS account has one VPC deployed. The Lambda functions and the DB cluster are deployed in the same AWS Region in the same AWS account. The developer needs to ensure that the Lambda functions can securely access the DB cluster without crossing the public internet. Which solution will meet these requirements?   (D)

A. Configure the DB cluster's public access setting to Yes.
B. Configure an Amazon RDS database proxy for the Lambda functions.
C. Configure a NAT gateway and a security group for the Lambda functions.
D. Configure the VPC, subnets, and a security group for the Lambda functions.

6. A developer has written the following IAM policy to provide access to an Amazon S3 bucket:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:GetObject",
        "s3:PutObject"
      ],
      "Resource": "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": "arn:aws:s3:::DOC-EXAMPLE-BUCKET/secrets*"
    }
  ]
}
```

Which access does the policy allow regarding the s3: Get Object and s3: Put Object actions?   (D)

A. Access on all buckets except the "DOC-EXAMPLE-BUCKET" bucket
B. Access on all buckets that start with "DOC-EXAMPLE-BUCKET" except the "DOC-EXAMPLE-BUCKET/secrets" bucket
C. Access on all objects in the "DOC-EXAMPLE-BUCKET" bucket along with access to all S3 actions for objects in the "DOC-EXAMPLE-BUCKET" bucket that start with "secrets"
D. Access on all objects in the "DOC-EXAMPLE-BUCKET" bucket except on objects that start with "secrets

7. A developer is creating a mobile app that calls a backend service by using an Amazon API Gateway REST API. For integration testing during the development phase, the developer wants to simulate different backend responses without invoking the backend service.
Which solution will meet these requirements with the LEAST operational overhead? (D)
A. Create an AWS Lambda function. Use API Gateway proxy integration to return constant HTTP responses.
B. Create an Amazon EC2 instance that serves the backend REST API by using an AWS CloudFormation template.
C. Customize the API Gateway stage to select a response type based on the request.
D. Use a request mapping template to select the mock integration response.

8. Which component of the AWS global infrastructure is made up of one or more discrete data centres that have redundant power, networking, and connectivity?   (B)
A. AWS Region   B. Availability Zone   C. Edge location   D. Local Zone

9. A company wants to migrate a critical application to AWS. The application has a short runtime. The application is invoked by changes in data or by shifts in system state. The company needs a compute solution that maximizes operational efficiency and minimizes the cost of running the application. Which AWS solution should the company use to meet these requirements?
(C)
A. EC2   B. S3   C. Lambda   D. Cloud9

10. A company needs to establish a connection between two VPCs. The VPCs are in two different AWS Regions. The company wants to use the existing infrastructure of the VPCs for this connection. Which AWS service or feature can be used to establish this connection? (D)
A. Load Balancer B. Autoscaling C. VPN Connection D. VPC Peering

11. Which of the following are advantages of the AWS Cloud? (Choose two.)   (B,C)
A. AWS management of user-owned infrastructure
B. Ability to quickly change required capacity
C. High economies of scale   D. Increased deployment time to market
E. Increased fixed expenses

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- In Set-3 2 question have **3 marks**.   *****

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D. Use a request mapping template to select the mock integration response.

2. A developer needs to migrate an online retail application to AWS to handle an anticipated increase in traffic. The application currently runs on two servers: one server for the web application and another server for the database. The web server renders webpages and manages session state in memory. The database server hosts a MySQL database that contains order details. When traffic to the application is heavy, the memory usage for the web server approaches 100% and the application slows down considerably. The developer has found that most of the memory increase and performance decrease is related to the load of managing additional user sessions. For the web server migration, the developer will use Amazon EC2 instances with an Auto Scaling group behind an Application Load Balancer. Which additional set of changes should the developer make to the application to improve the application's performance?   (B)

A. Use an EC2 instance to host the MySQL database. Store the session data and the application data in the MySQL database.

B. Use Amazon ElastiCache for Memcached to store and manage the session data. Use an Amazon RDS for MySQL DB instance to store the application data.

C. Use Amazon ElastiCache for Memcached to store and manage the session data and the application data.

D. Use the EC2 instance store to manage the session data. Use an Amazon RDS for MySQL DB instance to store the application data

3. Which Amazon S3 storage class has the lowest cost?   (A)

A. Glacier   B.S3   C. S3 Buckets   D. Elastic Block Storage

4. Which database is ideal for large organizations and enterprises?   (D)

A. Aurora   B. RDS   C. MySQL   D. PostgreSQL

5. What is the command to get the status of the Git repository? (C)

A. pwd　　　　B. Git pwd　　　　c. Git status　　　　D. Git –status

6. A company is storing sensitive customer' data in an Amazon S3 bucket. The company wants to protect the data from accidental deletion or overwriting. Which S3 feature should the company use to meet these requirements? (B)

A. S3 Lifecycle rules　　　　B. S3 Versioning　　　　C. S3 bucket policies　　　D. KMS

7. What does the HTTP status code 500 signify? (C)

A. Bad Request　　　　B. Unauthorized　C. Internal Server Error　　　　D. Not Found

8. A company has deployed infrastructure on AWS. A development team wants to create an AWS Lambda function that will retrieve data from an Amazon Aurora database. The Amazon Aurora database is in a private subnet in company's VPC. The VPC is named VPC1. The data is relational in nature. The Lambda function needs to access the data securely.

Which solution will meet these requirements? (A)

A. Create the Lambda function. Configure VPC1 access for the function. Attach a security group named SG1 to both the Lambda function and the database. Configure the security group inbound and outbound rules to allow TCP traffic on Port 3306.

B. Create and launch a Lambda function in a new public subnet that is in a new VPC named VPC2. Create a peering connection between VPC1 and VPC2.

C. Create the Lambda function. Configure VPC1 access for the function. Assign a security group named SG1 to the Lambda function. Assign a second security group named SG2 to the database. Add an inbound rule to SG1 to allow TCP traffic from Port 3306.

D. Export the data from the Aurora database to Amazon S3. Create and launch a Lambda function in VPC1. Configure the Lambda function query the data from Amazon S3.

9. A developer has written an AWS Lambda function. The function is CPU-bound. The developer wants to ensure that the function returns responses quickly.

How can the developer improve the function's performance? (B)

A. Increase the function's CPU core count.　　　　B. Increase the function's memory.

C. Increase the function's reserved concurrency.　D. Increase the function's timeout.

10. What does HTTP status code 503 represent? (E)

A. No Service　B. Unauthorize　C. Not Found　D. Site can't reach　E. Service Unavailable

11. Which port number does Oracle Database use? (B)

A. 3306　　　　B. 1521　　　　C. 5132　　　　D. 6079　E. 8080　　　　F. 3389

12. Which port number is used by SNMP? (F)

A. 156　　　　B.157　　　　C. 158　　　　D. 159　　　　E.160　　　　F.161

13. What is the port for DHCP client? (E)

A. 61　　　　B.66　　　　C.65　　　　D.66　　　　E.68　　　　F.69

14. What is apipa in networking? (C)

A. Automatic Public IP Addressing　　　　B. Automatic Private IP Assessing

C. Automatic Private IP Addressing　　　　D. Automated Public IP Addressing

15. What is loopback IP? (A)

A. 127.0.0.1　B. 169.0.01　　　C.127.10.256.255　　　D. 129.0.0.1　E. 128.26.0.3

16. What is the port number of FTP data channel? (E)

A. 28　　　　B. 27　　　　C. 24　　　　D. 23　　　　E. 20　　　　F. 21

17. Which of the following is a fully managed MySQL-compatible database? (C)

A. S3　B. DynamoDB　　　C. RDS　　　D. Aurora　　　E. Postgre SQL

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1. A developer creates a VPC named VPC-A that has public and private subnets. The developer also creates an Amazon RDS database inside the private subnet of VPC-A. To perform some queries, the developer creates an AWS Lambda function in the default VPC. The Lambda function has code to access the RDS database. When the Lambda function runs, an error message indicates that the function cannot connect to the RDS database. How can the developer solve this problem?

(B)

A. Modify the RDS security group. Add a rule to allow traffic from all the ports from the VPC CIDR block.

B. Redeploy the Lambda function in the same subnet as the RDS instance. Ensure that the RDS security group allows traffic from the Lambda function.

C. Create a security group for the Lambda function. Add a new rule in the RDS security group to allow traffic from the new Lambda security group.

D. Create an IAM role. Attach a policy that allows access to the RDS database. Attach the role to the Lambda function.

2. An application uses Lambda functions to extract metadata from files uploaded to an S3 bucket; the metadata is stored in Amazon DynamoDB. The application starts behaving unexpectedly, and the developer wants to examine the logs of the Lambda function code for errors. Based on this system configuration, where would the developer find the logs?

A. Amazon S3   B. AWS CloudTrail   C.   CloudWatch   (✓)

                                                              D. DynamoDB

3. A developer is using an AWS Lambda function to generate avatars for profile pictures that are uploaded to an Amazon S3 bucket. The Lambda function is automatically invoked for profile pictures that are saved under the /original/ S3 prefix. The developer notices that some pictures cause the Lambda function to time out. The developer wants to implement a fallback mechanism by using another Lambda function that resizes the profile picture. Which solution will meet these requirements with the LEAST development effort? (B)

A. Set the image resize Lambda function as a destination of the avatar generator Lambda function for the events that fail processing.

B. Create an Amazon Simple Queue Service (Amazon SQS) queue. Set the SQS queue as a destination with an on-failure condition for the avatar generator Lambda function. Configure the image resize Lambda function to poll from the SQS queue.

C. Create an AWS Step Functions state machine that invokes the avatar generator Lambda function and uses the image resize Lambda function as a fallback. Create an Amazon Event Bridge rule that matches events from the S3 bucket to invoke the state machine.

D. Create an Amazon Simple Notification Service (Amazon SNS) topic. Set the SNS topic as a destination with an on-failure condition for the avatar generator Lambda function. Subscribe the image resize Lambda function to the SNS topic.

4. A developer wants to store information about movies. Each movie has a title, release year, and genre. The movie information also can include additional properties about the cast and production crew. This additional information is inconsistent across movies. For example, one movie might have an assistant director, and another movie might have an animal trainer. The developer needs to implement a solution to support the following use cases: For a given title and release year, get all details about the movie that has that title and release year. For a given title, get all details about all movies that have that title. For a given genre, get all details about all movies in that genre. Which data store configuration will meet these requirements? (A)

A. Create an Amazon DynamoDB table. Configure the table with a primary key that consists of the title as the partition key and the release year as the sort of key. Create a global secondary index that uses the genre as the partition key and the title as the sort of key.

B. Create an Amazon DynamoDB table. Configure the table with a primary key that consists of the genre as the partition key and the release year as the sort of key. Create a global secondary index that uses the title as the partition key.

C. On an Amazon RDS DB instance, create a table that contains columns for title, release year, and genre. Configure the title as the primary key.

D. On an Amazon RDS DB instance, create a table where the primary key is the title, and all other data is encoded into JSON format as one additional column

5. By using which service, we can host static and dynamic website? (B)
A. Elastic Beanstalk   B. Elastic compute cloud   C. S3   D. Load balancer

6. how many availabilities zone we have in AWS cloud? (A)
A. 105   B. 3   C. 6   D.100

7. AWS Elastic Beanstalk is a service that manages web infrastructure. (B)
A. False   B. True   C. true or false   D. None of the above

8. AWS DynamoDB DB stores data in_____? (D)
A. EC2   B. Images   C. DynamoDB D. Documents   E. DynamoDB Cluster

9. In serverless computing, I do not have to think about_____? (B)
A. Code   B. Servers   C. Storage   D. Controll   E. S3

10. Which tool we used to calculate the price in AWS? (B)
A. AWS Calculator B. AWS Cost explorer C. Pricing Calculator   D. Pricing Dashboard

11. Which command we used for comparing the content of two lines one by line? (B)
A. Compare   B. diff   C. differ   D. uptime   E. sort

12. I want to know the current user data, then which command I must use? (F)
A. Pwd   B. Whoami   C. None of the above   D. Whopwd   E. Finger F. W

13. What is the command for move data into a file? (B)
A. Echo   B. mv   C. move   D. cp   E. None of the above   F.cat

14. What port number is used by PostgreSQL? (B)
A. 3306   B. 5432   C. 3389   D.1541   E. 1521   F. 6379

15. What does the HTTP status code 404 represent? (D)
A. Unauthorized B. Forbidden C. Site can't reach D. Not found E. Internal Server Error

16. A developer is creating a Ruby application and needs to automate the deployment, scaling, and management of an environment without requiring knowledge of the underlying infrastructure. Which service would best accomplish this task? (C)
A. Code Deploy B. EC2   C. Elastic beanstalk   D. S3   E. CloudFormation F. IAM