AWS Platform Lead

Client Name
ValueMomentum

Candidate Name
Pramod Sheshrao Taywade

Date of Attempt
14-Nov-2024

Candidate ID
10695396

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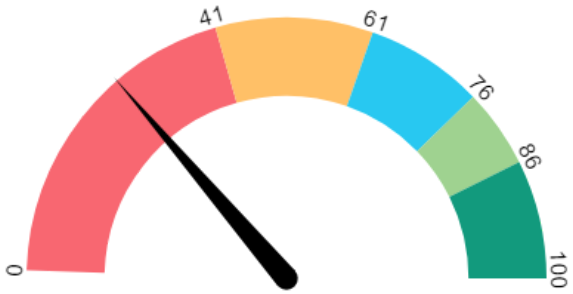
Score Analysis

Score: 8/ 30 **Time Taken: 25 min 29 sec / 60 min**

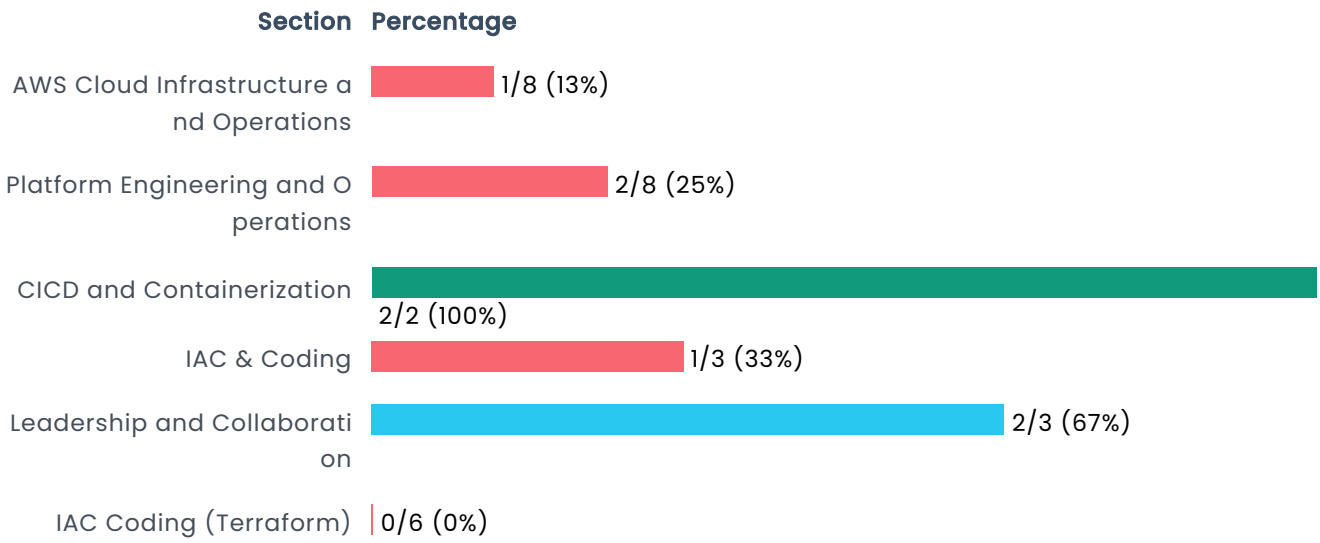
Novice (27%)



Novice (0% - 40%)
Practitioner (41% - 60%)
Competent (61% - 75%)
Proficient (76% - 85%)
Expert (86% - 100%)

Pramod Sheshrao Taywade scored **27%** and completed assessment in **42%** of the alloted time

Section Score Analysis



Section Skill Analysis

Section 1: AWS Cloud Infrastructure and Operations

Total Score: **1/ 8** Negative Points: **0** Time Taken: **4 min 57 sec/8 min**

Question Analysis:

Total Question: **4** Correct: **1** Wrong: **3** Skipped: **0** Not Answered: **0**

Skills	#Questions	Skill Score

Skills	#Questions	Skill Score
AWS Cloud Infrastructure and Operations	4	1/8

Section 2: Platform Engineering and Operations

Total Score: **2/ 8** Negative Points: **0** Time Taken: **3 min 59 sec/8 min**

Question Analysis:

Total Question: **4** Correct: **2** Wrong: **2** Skipped: **0** Not Answered: **0**

Skills	#Questions	Skill Score
Platform Engineering and Operations	4	2/8

Section 3: CICD and Containerization

Total Score: **2/ 2** Negative Points: **0** Time Taken: **3 min 54 sec/6 min**

Question Analysis:

Total Question: **3** Correct: **2** Wrong: **1** Skipped: **0** Not Answered: **0**

Skills	#Questions	Skill Score
CICD and Containerization	3	2/2

Section 4: IAC & Coding

Total Score: **1/ 3** Negative Points: **0** Time Taken: **4 min 28 sec/8 min**

Question Analysis:

Total Question: **4** Correct: **1** Wrong: **3** Skipped: **0** Not Answered: **0**

Skills	#Questions	Skill Score
IAC	4	1/3

Section 5: Leadership and Collaboration

Total Score: **2/ 3** Negative Points: **0** Time Taken: **3 min 29 sec/12 min**

Question Analysis:

Total Question: **4** Correct: **2** Wrong: **2** Skipped: **0** Not Answered: **0**

Skills	#Questions	Skill Score
Leadership and Collaboration	**4**	**2/3**

Section 6: IAC Coding (Terraform)

Total Score: **0/ 6** Negative Points: **0** Time Taken: **4 min 42 sec/18 min**

Question Analysis:

Total Question: **3** Correct: **0** Wrong: **3** Skipped: **0** Not Answered: **0**

Skills	#Questions	Skill Score
IAC Coding (Terraform)	**3**	**0/6**

A guide to get started on your Individual Development Plan (IDP) :

Identification of strengths and skill improvement needs

● Strength

Sometimes, you don't realize your strengths until you are faced with your weaknesses. You become stronger when you know where you must improve and the strongest when you convert your improvement areas to your strengths. You can now become the best by working on your improvement areas and learning new skills while climbing the growth ladder.

● Improvement area

Based on your score, **Amazon Web Services (AWS), Infrastructure as Code (Terraform)** are the identified areas of improvement.

Difficulty Level Analysis

Level	Number of Questions	Correct Attempts	Correctness
Easy	0	0	0%
Medium	0	0	0%
Hard	22	8	36.36%

Proctoring Analysis

Images Captured: 55 **Image Violations: 1**

Image violations detected, within tolerable limit.

Multiple Faces Detected	0
No Face Detected	1
Unrecognized Face Detected	0

Window Violation: 2 **Time Violation: 10 sec**

Window violations detected up to 10 sec, within tolerable limit.

Test Log

Test Status	Date & Time	Captured IP address
Appeared On	14 Nov 2024, 11:11 AM	2409:40c2:3e:978:c45a:32ff:fe69:c289
Completed On	14 Nov 2024, 11:40 AM	2409:40c2:3e:978:c45a:32ff:fe69:c289
Report Generated On	14 Nov 2024, 11:40 AM	2409:40c2:3e:978:c45a:32ff:fe69:c289

Question Details

Question: **#1**	Type: **Descriptive**	Skill: **AWS Cloud Infrastructure and Operations**	Status: **Answered**
Result: **Wrong**	Level: **Hard**	Time Taken: **3 min 51 sec**	Average Time: **4 min 32 sec**
Score: **0 / 5**	Window Violation: **0 times**	Time Violation: **0 sec**	

Question #1

As a Platform Lead, you're tasked with designing a scalable and resilient cloud architecture for a high-traffic e-commerce platform. The platform needs to ensure high availability across multiple regions, with secure networking and minimal latency for customers globally. You also need to handle data storage requirements for both structured and unstructured data.*Describe the steps you would take to design this architecture using AWS services. Include considerations for networking, compute resources, storage options, disaster recovery, and security. How would you ensure that the architecture is cost-optimized while meeting performance requirements?

Answer:

1 create vpc

2 create private subnet for database and public subnet for web servers

Internet gateway connect to the public subnet

Nat gateway created in public subnet and using route table securely provide internet to the pvt subnet to access database

Endpoints creation for s3

Question: **#2**	Type: **Descriptive**	Skill: **Platform Engineering and Operations**	Status: **Answered**
Result: **Wrong**	Level: **Hard**	Time Taken: **2 min 34 sec**	Average Time: **4 min 33 sec**
Score: **0 / 5**	Window Violation: **0 times**	Time Violation: **0 sec**	

Question #2

You are leading the cloud operations for a company that has recently migrated its critical applications to AWS. The organization uses a range of services, including EC2, RDS, Lambda, and EKS, and has set up monitoring and alerting through CloudWatch and SNS. One of your key responsibilities is to ensure high availability and performance of these services while keeping operational costs within budget.

A few days after migration, you notice that certain EC2 instances are consistently underutilized, and there are periodic spikes in RDS usage that are triggering alerts. Additionally, you find that some Lambda functions are taking longer than expected to execute, impacting application performance.

Explain your approach to addressing the underutilization of EC2 instances and ensuring cost efficiency.
Describe the steps you would take to investigate and address the performance issues with the RDS and Lambda services.
What proactive measures would you implement to prevent similar issues from occurring in the future?

Answer:

Initially I will go with cloudwatch alerts and alarm to identify the issue

Then will go with asg to identify the ec2 instance performance

Then move to the lambda functions and will check the code

Then fault talarance help us to resolve the cost effective solutions

Question: **#3**	Type: **Descriptive**

Skill: **CICD and Containerization**	Status: **Answered**		
Result: **-**	Level: **Hard**	Time Taken: **3 min 8 sec**	Average Time: **3 min 43 sec**
Score: **Unscored**	Window Violation: **0 times**	Time Violation: **0 sec**	

Question #3

Your organization is moving from a monolithic architecture to microservices. You've been asked to lead the adoption of containerization using Kubernetes on AWS (EKS). The application consists of several microservices, each requiring different scaling policies and resource limits. Additionally, the solution should ensure zero downtime during updates. *Describe the key steps involved in designing the container orchestration solution. Explain how you would manage service discovery, load balancing, horizontal scaling, and rolling updates within the Kubernetes environment. What strategies would you use to monitor container health, optimize resource usage, and handle potential failures in production?

Answer:

When we have deal with containerisation there are two things keep in mind one of them is control plane and other on is data plane

Then we have deal with asg with containerisation

Then move to the etcd and when it comes to update then will go with rollback features

Will always preferred horizontal scaling for smooth operation

Question: **#4**	Type: **Descriptive**	Skill: **IAC**	Status: **Answered**
Result: **-**	Level: **Hard**	Time Taken: **2 min 50 sec**	Average Time: **4 min 21 sec**
Score: **Unscored**	Window Violation: **0 times**	Time Violation: **0 sec**	

Question #4

You are managing an enterprise-grade multi-cloud environment using AWS and Azure. The company is looking to automate the provisioning of resources and ensure that infrastructure changes are traceable and compliant with internal policies. *Explain how you would implement Infrastructure as Code (IaC) using both Terraform and AWS CloudFormation. Detail the process of automating deployments, managing version control for IaC templates, handling cross-cloud dependencies, and ensuring compliance with governance policies. How would you integrate these IaC workflows with a CI/CD pipeline to achieve continuous delivery?

Answer:

When we have created infrastructure using iac then we have two options one of them is terraform and other one is cloudformation when there is multicoloud then terraform is better and when we have only use AWS then cloudformation is better when it comes to cicd pipeline then initially we have to integrate or associated these iac tool with GitHub or gitlab to create a cicd pipeline for production

Question: **#5**	Type: **Descriptive**	Skill: **Leadership and Collaboration**	Status: **Answered**
Result: **-**	Level: **Hard**	Time Taken: **2 min 0 sec**	Average Time: **5 min 17 sec**
Score: **Unscored**	Window Violation: **0 times**	Time Violation: **0 sec**	

Question #5

You have been appointed as the technical lead for a platform engineering team, responsible for delivering a new enterprise platform for your organization. The project involves collaboration between multiple teams (networking, security, developers), with strict deadlines. Additionally, you are expected to drive innovation, improve team efficiency, and ensure alignment with business goals. *Describe how you would manage this project from start to finish. Include details on your approach to team leadership, stakeholder management, project planning, risk mitigation, and ensuring timely delivery. How would you foster collaboration between teams, handle conflicting priorities, and measure the success of the platform after delivery?

Answer:

When we have set-up new project from scratch to production then initially we have to create sprint and bifurcated the task to the specific individual as per there skill then there is a centralised repo where we collect all the task and then will used it out project

Question: **#6**	Type: **Descriptive**	Skill: **IAC Coding (Terraform)**	Status: **Answered**
Result: **Wrong**	Level: **Hard**	Time Taken: **2 min 32 sec**	Average Time: **4 min 5 sec**
Score: **0 / 2**	Window Violation: **1 times**	Time Violation: **5 sec**	

Question #6

Explain the process of attaching an Elastic IP (EIP) to an EC2 instance using Terraform. Provide a Terraform code example demonstrating the creation of an EIP and ensuring its attachment to an EC2 instance, ensuring proper sequencing of resource creation. Function Description: In the provided configuration snippet, implement the process of attaching an Elastic IP (EIP) to an EC2 instance using Terraform. Describe how Terraform ensures proper sequencing of resource creation to ensure successful attachment.

Answer:

Initially will go to the ec2 instance and then attached eip to the ec2 code or script is below

```
resource "aws_instance" "foo" {
  # us-west-2
  ami = "ami-5189a661"
  instance_type = "t2.micro"
```

```
  private_ip = "10.0.0.12"
  subnet_id = aws_subnet.tf_test_subnet.id
}

resource "aws_eip" "bar" {
  domain = "vpc"

  instance = aws_instance.foo.id
  associate_with_private_ip = "10.0.0.12"
  depends_on = [aws_internet_gateway.gw]
}
```

Question: **#7**	Type: **Descriptive**	Skill: **IAC Coding (Terraform)**	Status: **Answered**
Result: **Wrong**	Level: **Hard**	Time Taken: **1 min 5 sec**	Average Time: **3 min 15 sec**
Score: **0 / 2**	Window Violation: **1 times**	Time Violation: **5 sec**	

Question #7

Describe how Terraform data sources can be utilized to fetch dynamic information, such as the latest Amazon Machine Image (AMI), for provisioning an EC2 instance. Provide a Terraform code snippet showcasing the retrieval and utilization of data attributes within an aws_instance resource block. Function Description: In the provided configuration snippet, implement the Terraform code to fetch the latest Ubuntu AMI meeting specific criteria using a data source and create an EC2 instance using this fetched AMI.

Answer:

```
data "aws_instance" "foo" {
  instance_id = "i-instanceid"

  filter {
    name = "image-id"
    values = ["ami-xxxxxxxx"]
  }

  filter {
```

```
    name = "tag:Name"
    values = ["instance-name-tag"]
  }
}
```

Question: **#8**	Type: **Descriptive**	Skill: **IAC Coding (Terraform)**	Status: **Answered**
Result: **Wrong**	Level: **Hard**	Time Taken: **1 min 5 sec**	Average Time: **4 min 43 sec**
Score: **0 / 2**	Window Violation: **0 times**	Time Violation: **0 sec**	

Question #8

Question / Problem Statement

Detail the procedure for creating an IAM role and policy using Terraform for managing permissions within AWS. Include Terraform resource blocks for defining the IAM role, and policy, and attaching the policy to the role to grant specific permissions.

Function Description: In the provided configuration snippets, implement the Terraform code to create an IAM role and policy, and attach the policy to the role to grant specific permissions.

There will be multiple test cases running, so the Input and Output should match exactly as provided. The base Output variable result is set to a default value of None which can be modified.

Input:

example-role

example-policy

Answer:

Example policy

Disclaimer

This report is generated electronically based on the information provided by the assessment participants. It also includes flags, especially when proctoring services are utilized. However, it is important to emphasize that this report should not be the sole basis for making any business, selection, entrance, or employment-related decisions. iMocha assumes no responsibility for any consequences arising from the use of this report or any actions taken or refrained from as a result of it. This includes all business decisions made in reliance on the information, advice, or AI flags contained in this report, as well as any sources of information mentioned or referred to in the report.