4.AWS Test Result Report

📘 AWS Test Result Report – English Version

Source:

🟦 AWS Test Result Report

Project Name: AWS Migration Project for SME Corporate Website

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💚 1. Test Overview

This document verifies whether the major components of the 3-tier AWS architecture

(**ALB / EC2 / RDS / S3 / CloudWatch**)

operate as intended, and summarizes all results.

💙 2. Test Item Checklist

No	Test Item	Result	Notes
1	HTTPS access via ALB	✅	SSL padlock verified
2	Web display on EC2 (curl)	✅	Nginx working
3	ALB → EC2 health check	✅	Status: Healthy
4	EC2 → RDS connection (mysql)	✅	DB connection successful
5	S3 access	✅	IAM permission OK

No	Test Item	Result	Notes
6	CloudWatch metrics	✅	CPU and others collected normally
7	CloudWatch Logs / Nginx logs	✅	Logs recorded
8	SNS email notification	✅	Email received
9	Route53 → ALB DNS resolution	✅	Alias record working
10	S3 versioning behavior	✅	Versions displayed correctly

💛 3. Detailed Test Results

🧩 3.1 HTTPS Access via ALB

Purpose:

To verify secure HTTPS access through the load balancer.

Procedure:

1. Access: https://corpsite111.com
2. Confirm SSL certificate padlock
3. Test using the ALB DNS name as well

Result:

👉 **Success**

Notes:

- ACM certificate applied correctly
- HTTP → HTTPS redirect functioning properly

🧩 3.4 EC2 → RDS Connectivity

Purpose:

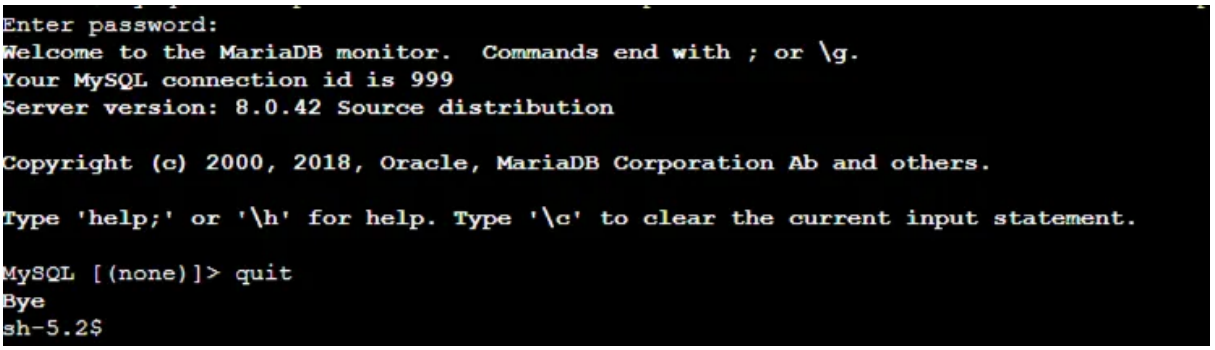
To verify correct DB connectivity from the application layer.

Procedure:

```
mysql -h <endpoint> -u <user> -p
```

Result:

👉 **Success**



Notes:

- SG rule for port **3306** works properly
- RDS is deployed in the Private-DB subnet

🧩 3.5 S3 Access Test

Purpose:

To verify S3 access using the IAM role attached to EC2.

Procedure:

1. Upload a file into the S3 bucket
2. Confirm that the file is displayed correctly

Result:

👉 **Success**

Notes:

- Versioning: **Enabled**
- Lifecycle rule: **Configured**

🧩 3.8 CloudWatch / SNS Alert Test

Purpose:

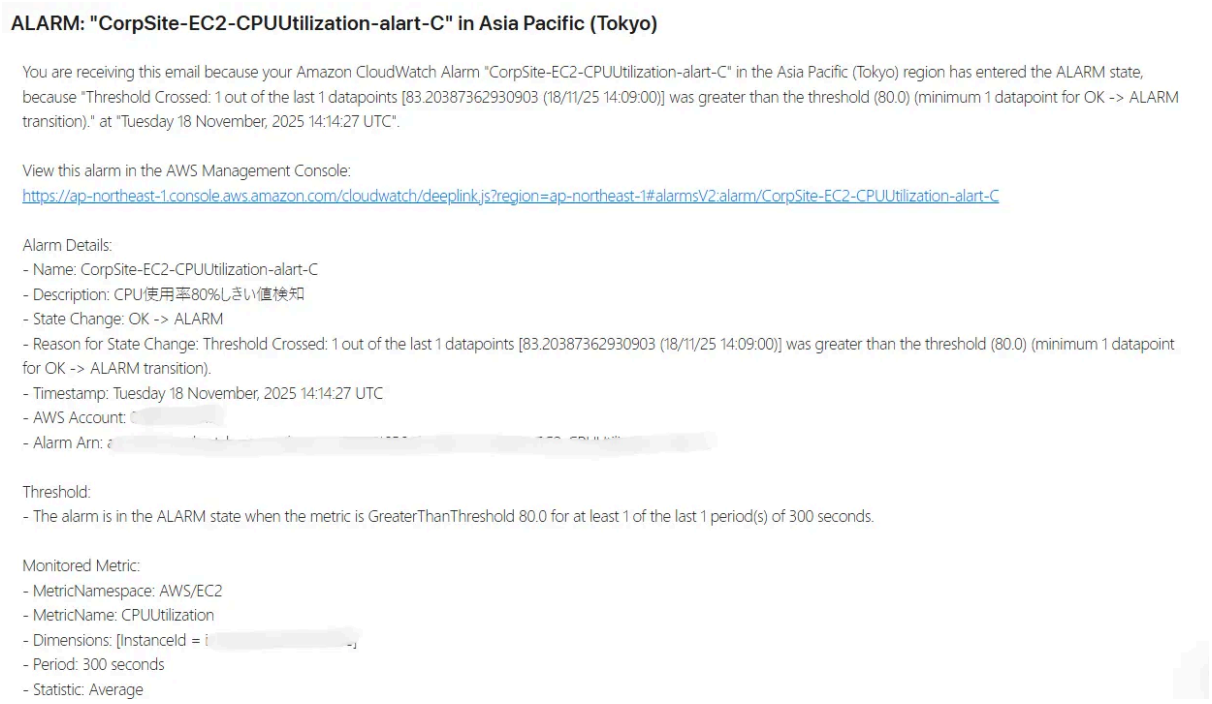
To verify that alert notifications work as expected.

Procedure:

1. Force CPU alarm threshold to be exceeded
2. Confirm SNS email notification arrived

Result:

👉 **Success**



ALARM: "CorpSite-EC2-CPUUtilization-alart-C" in Asia Pacific (Tokyo)

You are receiving this email because your Amazon CloudWatch Alarm "CorpSite-EC2-CPUUtilization-alart-C" in the Asia Pacific (Tokyo) region has entered the ALARM state, because "Threshold Crossed: 1 out of the last 1 datapoints [83.20387362930903 (18/11/25 14:09:00)] was greater than the threshold (80.0) (minimum 1 datapoint for OK -> ALARM transition)." at "Tuesday 18 November, 2025 14:14:27 UTC".

View this alarm in the AWS Management Console:
https://ap-northeast-1.console.aws.amazon.com/cloudwatch/deeplink.js?region=ap-northeast-1#alarmsV2:alarm/CorpSite-EC2-CPUUtilization-alart-C

Alarm Details:
- Name: CorpSite-EC2-CPUUtilization-alart-C
- Description: CPU使用率80%しきい値検知
- State Change: OK -> ALARM
- Reason for State Change: Threshold Crossed: 1 out of the last 1 datapoints [83.20387362930903 (18/11/25 14:09:00)] was greater than the threshold (80.0) (minimum 1 datapoint for OK -> ALARM transition).
- Timestamp: Tuesday 18 November, 2025 14:14:27 UTC
- AWS Account:
- Alarm Arn:

Threshold:
- The alarm is in the ALARM state when the metric is GreaterThanThreshold 80.0 for at least 1 of the last 1 period(s) of 300 seconds.

Monitored Metric:
- MetricNamespace: AWS/EC2
- MetricName: CPUUtilization
- Dimensions: [InstanceId =
- Period: 300 seconds
- Statistic: Average

Notes:

- Notification arrived within **3 minutes**
- ALB/EC2 basic metrics collected successfully

💜 4. Overall Evaluation

Result: OK

All major components (ALB, EC2, RDS, S3, CloudWatch) operated exactly as designed.

HTTPS, monitoring, and alerting are implemented correctly, achieving a **fully functional production-level 3-tier architecture**.

💗 5. Future Improvements / Additional Test Plans

- RDS **failover test** (Multi-AZ switchover)
- WAF penetration / attack simulation
- Deployment test after introducing **CI/CD**
- Enhanced log collection & alerting during failover scenarios