

53 Cloud Computing					
WorldSkills Occupational Standard					
Section	WSOS Marks				
1	Work organization and management				
2	Communication and interpersonal skills				
3	Problem solving, innovation, and creativity				
4	Security				
5	Reliability, scalability, and elasticity				
6	Performance and optimization				
7	Operational considerations				
8	Sustainability				
Criteria					
ID	Name				

A	Cost Optimization
B	Operation Excellence
C	Security
D	Reliability
E	Performance Efficiency
F	Sustainability
G	Work organization and management
H	
I	

Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
A1	Cost Optimization - Day 1	1			
			M	Is Lifecycle Configuration set for S3	
			M	Does APIGateway has tag	
			M	Is AWS Batch used	
			M	Cost Ratio rate of the solution	
A2	Cost Optimization - Day 2	2			
			M	Does ECS utilizes Fargate for running containers	
			M	Does Lambda function has tag	
			M	Is Lifecycle Configuration set for ECR repository	
			M	Cost Ratio rate of the solution	

Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
B1	Operational Excellence - Day 1	1			
			M	Is EventBridge Configured with Scheduler	
			M	Has AWS Batch Successfully Executed	
			M	Is S3 versioning enabled	
			M	Does VPC Peering exist	
			M	Is DynamoDB deletion protection is enabled	
			M	Whether ECR image Tag is immutable	
			M	Does DynamoDB have tags	
			M	CodePipeline is created and used successfully	
			M	Is ECR endpoint configured	
			M	Is DynamoDB used?	
			M	CodeDeploy is created and used successfully	
B2	Operational Excellence - Day 2	2			
			M	Is S3 versioning enabled	
			M	Does VPC has tag	
			M	Whether ECR image Tag is immutable	
			M	Does Guardduty has tag	
			M	Is ECR endpoint configured	
			M	Is DynamoDB endpoint configured	
			M	Is S3 endpoint configured	
			M	CodePipeline is created and used successfully	
			M	CodeBuild is created and used successfully	
			M	Is DynamoDB used?	
			M	CodeDeploy is created and used successfully	
			M	Is ALB log enabled	
			M	Whether Kinesis Analysis has tag	
B3	Operational Excellence - Day 3	3			
			M	Challenge1	
			M	Challenge2	
			M	Challenge3	
			M	Challenge4	

Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
C1	Security - Day 1	1			
			M	Is the DynamoDB table encrypted	
			M	Is S3 Encryption enabled	
			M	Is WAF configured	
			M	Are ECR Resource Policies Being Used	
			M	Is RDS Deletion Protection enabled	
			M	Does Codepipeline have approval stage	
			M	Is DynamoDB deletion protection is enabled	
C2	Security - Day2	2			
			M	No inbound rule allow traffic from SSH port in Security Group	
			M	No inbound rule of Security Group allow traffic from 0.0.0.0/0	
			M	Is S3 encrytion enabled	
			M	Is GuardDuty enabled	
			M	Is Kinesis Data Streams encryption enabled	
			M	Is RDS Deletion Protection enabled	
			M	Does Codepipeline have approval stage	
			M	Is DynamoDB deletion protection is enabled	
C3	Security - Day 3	3			
			M	Challenge5	
			M	Challenge6	
			M	Challenge7	
			M	Complete task3 of Cloud Questing Challenge	
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
D1	Reliability - Day 1	1			
			M	Is the DynamoDB table backed up	

			M	Is VPC FlowLog enabled	
			M	Is RDS config logs	
			M	Whether deletion protection is enabled for DynamoDB table	
			M	Success Respose Rate (SRR) >= 90%	
			M	Success Respose Rate (SRR) >= 80%	
			M	Success Respose Rate (SRR) >= 70%	
			M	Success Respose Rate (SRR) >= 60%	
D2	Reliability - Day 2	2			
			M	Is VPC FlowLog enabled	
			M	Is CloudWatch Alarm enabled	
			M	Is ECS Container Insight enabled	
			M	Whether ECS has AutoScaling Policy (Tasks >= 2)	
			M	Is ECS Task Definition logging enabled	
			M	Whether ECR has policy	
			M	Success Respose Rate (SRR) >= 90%	
			M	Success Respose Rate (SRR) >= 80%	
			M	Success Respose Rate (SRR) >= 70%	
			M	Success Respose Rate (SRR) >= 60%	
D3	Reliability - Day 3	3			
			M	Challenge8	
			M	Challenge9	
			M	Challenge10	
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
E1	Performancre Efficiency - Day 1	1			
			M	Dynamodb capacity mode (On-demand/Provisioned)	
			M	API Gateway active tracing by X-Ray	
			M	Is ECS Service Being Used	
E2	Performancre Efficiency - Day 2	2			
			M	Is CloudFront in use	
			M	Is ALB in use	
			M	API Gateway active tracing by X-Ray	

			M	Is Kinesis Analysis in use	
			M	Is Kinesis Data Stream in use	
			M	Is Kinesis Data Stream provisioned shard = 1	
			M	DynamoDB TTL is enabled	
E3	Performance Efficiency - Day 3	3			
			M	Challenge11	
			M	Challenge12	
			M	Finish task2 of Cloud Questing challenge	
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
F1	Sustainability - Day1	1			
			M	Is Parameter Store Intelligent-Tiering enabled	
			M	Is the backup retention period for the RDS database more than 7 days	
F2	Sustainability - Day2	2			
			M	Is S3 lifecycle enabled	
			M	Is application running on ECS	
			M	Is the backup retention period for the RDS database more than 7 days	
			M	Is GuardDutyFindingExport enabled	
F3	Sustainability - Day3	3			
			M	Finish task1 of Cloud Questing challenge	
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
G1	Work organization and management - Day1	1			
			M	Overall performance measured by system score board (Well Architecting 1)	
G2	Work organization and management - Day2	2			

			M	Overall performance measured by system score board (Well Architecting 2)	
G3	Work organization and management - Day3	3			
			M	Overall performance measured by system score board (Troubleshooting)	
G4	Work organization and management - Day3	3			
			M	Overall performance measured by system score board (Cloud Questing)	
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score

Standards						
		WSOS Marks	Aspect Marks	Variation		
		10.00	10.00	0.00		
		10.00	10.00	0.00		
		15.00	15.00	0.00		
		20.00	20.00	0.00		
		15.00	15.00	0.00		
		10.00	10.00	0.00		
		10.00	10.00	0.00		
		10.00	10.00	0.00		
		Total Variation		0.00		
				Mark		

				8.00		
				22.00		
				22.00		
				19.00		
				11.00		
				10.00		
				8.00		
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion A	Total Mark
Optimize storage costs, automate data management	Yes/No	6	1	0.50		
Tags in APIGateway facilitate efficient resource management, c	Yes/No	6	1	0.50		
Dynamically provisioning the optimal quantity and type of comp	Yes/No	6	1	1.00		
Ratio of recommended deployment:Full (2 marks) if .2 <= [Co	.2<=[CR]<=1.0	6	2	2.00		
Seamless, scalable, and cost efficient container management s	Yes/No	6	1	1.00		
Tags in Lambda functions facilitate efficient resource managem	Yes/No	6	1	0.50		
Helps reduce costs by automatically deleting unused images	Yes/No	6	1	0.50		
Ratio of recommended deployment:Full (2 marks) if .2 <= [Co	.2<=[CR]<=1.0	6	2	2.00		

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion B	Total Mark
Managing scheduled tasks and event-driven workflows	Yes/No	7	1	0.50		
Efficiently manage batch computing workloads	Yes/No	7	1	1.00		
Enhanced data protection and management capabilities	Yes/No	7	1	0.50		
Create a cohesive and secure network architecture that spans	Yes/No	7	1	1.00		
Prevents accidental deletion of tables, ensuring data safety and	Yes/No	7	1	0.50		
Ensure consistency and traceability by preventing changes to data	Yes/No	7	1	0.50		
Tags in DynamoDB facilitate efficient resource management, cost	Yes/No	7	1	0.50		
Automation of application deployment with CodePipeline	Yes/No	2	1	0.50		
ECR Endpoint is secured and configured	Yes/No	2	1	0.50		
DynamoDB Table is created	Yes/No	2	1	0.50		
Automation of application deployment with CodeDeploy	Yes/No	2	1	0.50		
Protects against accidental data loss	Yes/No	7	1	0.50		
Tagging a VPC enables better organization, management, and	Yes/No	7	1	0.50		
Ensure consistency and traceability by preventing changes to data	Yes/No	7	1	0.50		
Enhances organization and visibility, facilitating easier manage	Yes/No	7	1	0.50		
Ensuring efficient, secure, and reliable access to container ima	Yes/No	7	1	0.50		
Improves operational excellence by ensuring high availability, s	Yes/No	7	1	0.50		
Ensuring efficient, secure, and reliable access to storage resou	Yes/No	7	1	0.50		
Automation of application deployment with CodePipeline	Yes/No	2	1	0.50		
Automation of application deployment with CodeBuild	Yes/No	2	1	0.50		
DynamoDB Table is created	Yes/No	2	1	0.50		
Automation of application deployment with CodeDeploy	Yes/No	2	1	0.50		
Providing valuable insights into traffic patterns, helping to optim	Yes/No	7	1	1.00		
Enabling cost allocation, resource management, and complian	Yes/No	7	1	1.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each add	0	3	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each add	0	3	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each add	0	3	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each add	0	3	3	2.00		

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion C	Total Mark
Enhance the security of Dynamodb data transfer	Yes/No	4	1	1.00		
Provides a foundation for secure data storage and management	Yes/No	4	1	1.00		
Enhances security by protecting your applications from common attacks	Yes/No	4	1	2.00		
Secure access to your container images	Yes/No	4	1	1.00		
Prevents accidental deletion of the database, ensuring operational resilience	Yes/No	4	1	1.00		
Enhances control and security by allowing manual verification of backups	Yes/No	4	1	0.50		
Prevents accidental deletion of tables, ensuring data safety and availability	Yes/No	4	1	0.50		
Enhances network security by reducing exposure to potential unauthorized access	Yes/No	4	1	1.00		
Enhances network security by reducing exposure to potential unauthorized access	Yes/No	4	1	1.00		
Enhances data security by protecting stored objects from unauthorized access	Yes/No	4	1	1.00		
Enhances AWS security by continuously monitoring for malicious activity	Yes/No	4	1	1.00		
Ensures data confidentiality and integrity, safeguarding sensitive information	Yes/No	4	1	1.00		
Prevents accidental deletion of the database, ensuring operational resilience	Yes/No	4	1	1.00		
Enhances control and security by allowing manual verification of backups	Yes/No	4	1	0.50		
Prevents accidental deletion of tables, ensuring data safety and availability	Yes/No	4	1	0.50		
Completed with 0 clues, full (2 marks) deduct 0.5 for each additional clue	0	4	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each additional clue	0	4	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each additional clue	0	4	3	2.00		
Enhance security through advanced measures provided by cloud services	Yes/No	2	1	2.00		
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion D	Total Mark
Ensures data recovery and protection against accidental deletion	Yes/No	5	1	1.00		

Provides detailed visibility into network traffic	Yes/No	5	1	1.00		
Enhances reliability by enabling continuous monitoring and quick response	Yes/No	5	1	1.00		
Prevents accidental loss of critical data	Yes/No	5	1	1.00		
High SRR improve customer satisfaction	SRR >= 90%	2	4	0.50		
High SRR improve customer satisfaction	SRR >= 80%	2	5	0.50		
High SRR improve customer satisfaction	SRR >= 70%	2	6	0.50		
High SRR improve customer satisfaction	SRR >= 60%	2	7	0.50		
Provides detailed visibility into network traffic	Yes/No	5	1	1.00		
Ensures real-time monitoring and alerts for system reliability	Yes/No	5	1	1.00		
Allows for detailed monitoring and troubleshooting of containerized applications	Yes/No	5	1	1.00		
Ensures high reliability by maintaining optimal task availability	Yes/No	5	1	1.00		
Ensures effective monitoring and troubleshooting of containerized applications	Yes/No	5	1	0.50		
Ensures reliable management of container image access	Yes/No	5	1	0.50		
High SRR improve customer satisfaction	SRR >= 90%	2	4	0.50		
High SRR improve customer satisfaction	SRR >= 80%	2	5	0.50		
High SRR improve customer satisfaction	SRR >= 70%	2	6	0.50		
High SRR improve customer satisfaction	SRR >= 60%	2	7	0.50		
Completed with 0 clues, full (2 marks) deduct 0.5 for each additional clue	0	5	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each additional clue	0	5	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each additional clue	0	5	3	2.00		
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion E	Total Mark
Allows for predictable performance with defined throughput	Yes/No	6	1	0.50		
Providing detailed insights into request latency and identifying bottlenecks	Yes/No	6	1	0.50		
Automating deployment, scaling, and management of containerized applications	Yes/No	6	1	0.50		
Caching content closer to users, reducing latency and enhancing performance	Yes/No	6	1	0.50		
Intelligently distributing incoming application traffic across multiple servers	Yes/No	3	1	0.50		
Providing detailed insights into request latency and identifying bottlenecks	Yes/No	3	1	0.50		

Enabling real-time analysis of streaming data, facilitating timely	Yes/No	3	1	0.50		
Enabling real-time ingestion and processing of large-scale data	Yes/No	3	1	0.50		
Optimizes performance efficiency by providing cost-effective data	Yes/No	3	1	0.50		
Optimizing storage and improving application performance	Yes/No	3	1	0.50		
Completed with 0 clues, full (2 marks) deduct 0.5 for each add	0	3	3	2.00		
Completed with 0 clues, full (2 marks) deduct 0.5 for each add	0	3	3	2.00		
Enhances performance efficiency by ensuring reliable execution	Yes/No	1	1	2.00		
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion F	Total Mark
Improves sustainability by automatically optimizing storage costs	Yes/No	8	1	1.00		
Enhances sustainability by ensuring long-term data availability	Yes/No	8	1	1.00		
Reducing storage costs and environmental impact through efficient	Yes/No	8	1	2.00		
Reducing server idle time, and minimizing energy consumption	Yes/No	8	1	1.00		
Enhances sustainability by ensuring long-term data availability	Yes/No	8	1	1.00		
Promoting resource conservation through streamlined operations	Yes/No	8	1	2.00		
Promoting efficient operational practices, thereby minimizing energy	Yes/No	8	1	2.00		
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion G	Total Mark
Player ranking: Full (2 marks) if players ranking 1 to 3 on the score board Half (1 mark) if players ranking 4 to 6 on the score board Partial (0.5 mark) if players ranking 7 to 10 on the scored board		1	8	2.00		

Player ranking: Full (2 marks) if players ranking 1 to 3 on the score board Half (1 mark) if players ranking 4 to 6 on the score board Partial (0.5 mark) if players ranking 7 to 10 on the scored board		1	8	2.00		
Player ranking: Full (2 marks) if players ranking 1 to 3 on the score board Half (1 mark) if players ranking 4 to 6 on the score board Partial (0.5 mark) if players ranking 7 to 10 on the scored board		1	8	2.00		
Player ranking: Full (2 marks) if players ranking 1 to 3 on the score board Half (1 mark) if players ranking 4 to 6 on the score board Partial (0.5 mark) if players ranking 7 to 10 on the scored board		1	8	2.00		
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion H	Total Mark
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSOS Section	Calculation Row (Export only)	Max Mark	Criterion I	Total Mark
					Competition	Total Mark

8.00

[illegible]

10.00
8.00

0.00
0.00
100.00

Pass/Fail	PASS_FAIL	TRUE	
Full/Half/Quarter 2 Marks	CHOICE	TRUE	DEDUCTION_TYPE:::#x~x#UNIT#-#CHOICE3_LABEL:::#x~x#Quarter Marks - 2 < [CR] <= 3:
Clues Used	CHOICE	TRUE	DEDUCTION_TYPE:::#x~x#UNIT#-#CHOICE3_LABEL:::#x~x#2 clues used#-#CHOICE4_DE
SRR >=90%	CHOICE	TRUE	DEDUCTION_TYPE:::#x~x#UNIT#-#CHOICE2_DEDUCTION:::0.50000000#x~x##-#CHOICE
SRR >=80%	CHOICE	TRUE	DEDUCTION_TYPE:::#x~x#UNIT#-#CHOICE2_DEDUCTION:::0.50000000#x~x##-#CHOICE
SRR >=70%	CHOICE	TRUE	DEDUCTION_TYPE:::#x~x#UNIT#-#CHOICE2_DEDUCTION:::0.50000000#x~x##-#CHOICE
SRR >= 60%	CHOICE	TRUE	DEDUCTION_TYPE:::#x~x#UNIT#-#CHOICE2_DEDUCTION:::0.50000000#x~x##-#CHOICE
Player Ranking	CHOICE	TRUE	DEDUCTION_TYPE:::#x~x#UNIT#-#CHOICE3_LABEL:::#x~x#Quarter marks if players rank 1
