

AWS Well-Architected Framework Pillars & Keywords

Pillar	Key Words / Clues	Exam Tip / Focus
Operational Excellence	"Operations as code", "monitoring & alerting", "procedures", "automation", "improve processes", "frequent small changes"	Questions about managing and improving workloads
Security	"Encrypt", "MFA", "IAM roles", "audit logs", "identity & access", "traceability", "protect data", "incident response"	Think protecting data and systems
Reliability	"Recover from failure", "multi-AZ / multi-region", "auto scaling", "fault-tolerant", "backups", "resilient"	Questions about availability and uptime
Performance Efficiency	"Optimize", "performance", "go global", "experiment", "serverless", "right-sizing"	Questions about speed, scaling, and efficiency
Cost Optimization	"Reduce cost", "pay-as-you-go", "stop spending on unused resources", "monitor usage", "efficiency"	Questions about saving money and reducing waste
Sustainability	"Energy efficiency", "carbon footprint", "resource utilization", "green IT", "sustainable operations"	Questions about reducing environmental impact

AWS Design Principles & Keywords

Design Principle	Key Words / Clues	Exam Tip / Focus
Operations as Code (Operational Excellence)	"Automate", "Infrastructure as code", "IaC", "repeatable", "deployment scripts"	Look for automation and repeatability
Perform Frequent, Small, Reversible Changes	"Small updates", "frequent changes", "can be rolled back"	Look for agile and iterative updates
Refine Operations Procedures Frequently	"Review procedures", "improve process", "lessons learned"	Look for continuous improvement

Design Principle	Key Words / Clues	Exam Tip / Focus
Anticipate Failure	"Fault-tolerant", "redundancy", "failover", "resilient"	Look for designing to handle errors
Learn from Operational Events	"Postmortem", "lessons learned", "monitoring logs"	Look for learning from incidents
Implement Strong Identity Foundations (Security)	"IAM", "least privilege", "MFA", "roles and permissions"	Look for access control and identity
Enable Traceability	"Audit", "logs", "monitoring", "CloudTrail", "CloudWatch"	Look for tracking actions and changes
Apply Security at All Layers	"Defense in depth", "network, OS, app security", "multi-layer protection"	Look for multi-layered security
Automate Security Best Practices	"Automated patching", "encryption automation", "security rules"	Look for automatic security enforcement
Protect Data in Transit & at Rest	"Encryption", "SSL/TLS", "KMS", "encrypted storage"	Look for data protection
Prepare for Security Events	"Incident response plan", "backups", "monitor alerts"	Look for preparation for breaches
Scale Horizontally to Increase Availability	"Add more instances", "load balancing", "auto scaling"	Look for scaling out, not up
Stop Guessing Capacity	"Auto scaling", "on-demand resources", "elastic"	Look for pay for what you use, avoid over-provisioning
Experiment Often & Learn	"Test", "measure results", "optimize based on metrics"	Look for trial-and-error improvements
Optimize for Cost & Performance Trade-offs	"Balance cost vs speed", "efficient resources", "right-sizing"	Look for cost-conscious performance

Design Principle	Key Words / Clues	Exam Tip / Focus
Sustainability Principles	“Energy efficiency”, “resource utilization”, “reduce carbon footprint”	Look for green cloud / sustainable design

Cloud Computing Types & Keywords

Type	Key Words / Clues	Exam Focus / Example
IaaS (Infrastructure as a Service)	“Virtual servers”, “VMs”, “storage”, “networking”, “full OS control”, “configure the OS”, “rent compute resources”	EC2, EBS, VPC → You manage OS, apps, and data; AWS manages hardware
PaaS (Platform as a Service)	“Managed platform”, “deploy code only”, “no need to manage OS”, “automatic updates”, “runtime environment provided”	Elastic Beanstalk, AWS Lambda runtime → You manage code and data; AWS handles OS & infrastructure
SaaS (Software as a Service)	“Access via browser”, “no installation”, “software managed by provider”, “subscription-based”	Office 365, Salesforce, AWS WorkDocs → You just use the application
FaaS / Serverless	“Run code on events”, “no server management”, “pay per execution”, “automatic scaling”	AWS Lambda → Code execution only, infrastructure hidden

1. EC2 (Elastic Compute Cloud)

- **Keywords / Clues:**
 - “Virtual server”
 - “Full control over OS and networking”
 - “Custom instance type”
 - “Lift-and-shift from on-premises”
 - “Boot volume / root volume”

Hint: Anytime the question mentions **manual server management**, it's usually **EC2**.

EC2 Pricing Options (Cost Clues)

- **On-Demand** → “short workload, unpredictable traffic, pay by second”
 - **Reserved Instances / Savings Plan** → “long-term, steady workload, commit 1–3 years”
 - **Spot Instances** → “interruptible, flexible, cheap, short workload”
 - **Dedicated Host** → “entire physical server, BYOL, compliance”
 - **Dedicated Instance** → “no shared hardware, isolation required”
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2. Lambda (Serverless Functions)

- **Keywords / Clues:**
 - “Run code without provisioning servers”
 - “Event-driven”
 - “Milliseconds / short execution”
 - “Automatic scaling”
 - “Pay per execution”

Hint: Think “no servers, triggered by events”.

3. ECS / Fargate (Containers)

- **ECS Keywords / Clues:**
 - “Docker containers”
 - “Managed container service”
 - “Use with EC2 or Fargate”
- **Fargate Keywords / Clues:**
 - “Serverless containers”

- “No need to manage EC2 instances”

Hint: ECS = container management, Fargate = serverless containers.

4. EKS (Kubernetes)

- **Keywords / Clues:**

- “Kubernetes”
- “Orchestrate containers across multiple instances”
- “Managed control plane”

Hint: Look for **Kubernetes** or **multi-cloud container orchestration**.

5. Lightsail (Simplified Compute)

- **Keywords / Clues:**

- “Easy / pre-configured server”
- “Flat monthly price”
- “Small website, blog, or dev environment”

Hint: Think “**beginner-friendly, cheap, simple**”.

6. Outposts (Hybrid / On-Prem)

- **Keywords / Clues:**

- “Run AWS on-premises”
- “Low-latency local workloads”
- “Hybrid cloud”

Hint: Questions mentioning **on-premises + AWS services** → Outposts.

Topic	Key Words / Clues	Exam Focus / Example
Pricing Models / EC2 Costs	"Short-term", "long-term", "predictable workloads", "commitment", "cheaper than On-Demand", "interruptible", "save money"	Spot On-Demand , Reserved , Savings Plans , Spot
Cost Optimization	"Reduce cost", "stop spending on unused resources", "pay-as-you-go", "right-sizing", "monitor usage"	AWS best practices for saving money
Billing & Monitoring	"Track usage", "monitor charges", "alerts", "budgets", "AWS Cost Explorer"	Tools to monitor and control costs
Total Cost of Ownership (TCO)	"Compare to on-premises", "cost savings", "hardware/maintenance costs"	TCO calculator usage
Pricing Tools	"Estimate monthly cost", "plan ahead", "forecast expenses"	AWS Pricing Calculator, Budgets
Support Plans	"Business support", "Enterprise support", "24/7", "trusted advisor"	Cost of AWS support tiers
Cost Allocation / Tagging	"Identify which department/project uses resources", "allocate costs"	Use tags for tracking costs

AWS Pricing Tools & Keywords

Tool	Key Words / Clues	Exam Focus / Example
AWS Pricing Calculator	"Estimate monthly cost", "forecast charges before deployment", "plan resources", "calculate cost for services"	Used before deploying resources to estimate cost
AWS Cost Explorer	"Visualize costs", "historical usage", "trends", "graphs", "breakdown by service"	Used to analyze historical usage and spending patterns
AWS Budgets	"Set limits", "alerts when cost exceeds threshold", "forecast spending", "notifications"	Track and control costs proactively

Tool	Key Words / Clues	Exam Focus / Example
TCO (Total Cost of Ownership) Calculator	“Compare on-premises vs cloud”, “estimate savings”, “migration cost analysis”	Used for planning migration or cost comparison
AWS Free Tier / Cost Allocation Tags	“Identify usage by project or department”, “allocate costs”, “tagging resources”	Helps track and assign costs accurately

AWS Support Plans & Keywords

Support Plan	Key Words / Clues	Exam Focus / Example
Basic	“Free”, “billing & account support only”, “24/7 access to documentation, forums, whitepapers”	All AWS accounts get this by default; no technical support
Developer	“Best for testing/dev”, “business hours support”, “email support”, “general guidance”	Low-cost option for early development or non-production workloads
Business	“Production workloads”, “24/7 access to Cloud Support Engineers”, “phone/chat/email support”, “trusted advisor checks”, “faster response”	Critical for running production systems with quick response time
Enterprise	“Mission-critical workloads”, “15-minute response for critical issues”, “Technical Account Manager (TAM)”, “proactive guidance”	Highest level, for business-critical systems requiring fastest response and dedicated support