Introduction to the Well-Architected Framework

Introduction

Assess and improve architectures

Understand how design decisions impact business

Learn the five pillars and design principles

5 Pillars

Security
Reliability
Performance efficiency
Cost optimization
Operational excellence

Security Pillar

Identity and access management (IAM)

Detective controls
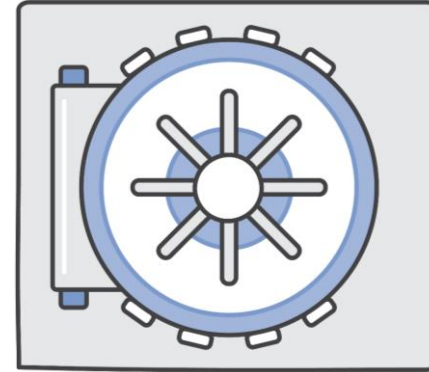
Infrastructure protection

Data protection

Incident response

Security Pillar: Design Principles

Implement security at all layers

Enable traceability

Apply principle of least privilege

Focus on securing your system

Automate

Reliability Pillar

Recover from issues/failures

Apply best practices in:

- Foundations
- Change management
- Failure management

Anticipate, respond, and prevent failures

Reliability Pillar: Design Principles

Test recovery procedures

Automatically recover

Scale horizontally

Stop guessing capacity

Manage change in automation

Performance Efficiency Pillar

Select customizable solutions
Review to continually innovate
Monitor AWS services
Consider the trade-offs

Performance Efficiency Pillar: Design Principles

Democratize advanced technologies

Go global in minutes

Use a serverless architectures

Experiment more often

Have mechanical sympathy

Cost Optimization Pillar

Use cost-effective resources
Matching supply with demand
Increase expenditure awareness
Optimize over time

Cost Optimization Pillar: Design Principles

Adopt a consumption model

Measure overall efficiency

Reduce spending on data center operations

Analyze and attribute expenditure

Use managed services

Operational Excellence Pillar

Manage and automate changes

Respond to events

Define the standards

Summary

Five pillars and their associated design principles

- Security
- Reliability
- Performance Efficiency
- Cost Optimization
- Operational Excellence

End of Module 4
Test Your Knowledge