AWS Well-Architected Framework

Learn, measure, and build using architectural best practices

The AWS Well-Architected Framework is a set of best practices for designing and operating secure, reliable, efficient, cost-effective, and sustainable workloads in the AWS Cloud. It provides a way for you to consistently measure your architectures against best practices and identify areas for improvement.

Concepts

- **Component:** A discrete part of an architecture.
- **Workload:** A collection of related components or resources.
- **Architecture:** The way you organize various components of a workload to interact with each other.
- **Level of effort:** The amount of time, effort, and complexity required to make a change in an architecture.
- **Best practice:** Recommended approaches for designing and operating cloud workloads.
- **The AWS Well-Architected tool:** A framework for you to evaluate your cloud architecture and implement designs that will scale over time.

The Pillars of the AWS Well-Architected Framework

- **Operational excellence**: Effectively run and manage workloads, gain operational insights, and continuously improve processes to deliver value to the business.
- **Security:** Enhance your overall security posture by protecting data, systems, and assets.
- **Reliability:** Ensure your workloads perform their intended functions accurately and consistently when needed.
- **Performance efficiency:** Use computing resources efficiently to meet system requirements, and to maintain that efficiency as demand changes and technologies evolve.
- **Cost optimization:** Deliver maximum business value at the lowest price point.
- **Sustainability:** Reduce environmental impact of cloud workloads.

Use Cases

Evaluate existing workloads
Assess processes for enhancement opportunities

Designing new applications
Build resilient architectures

Migrating on-premises workloads
Transition to cloud-native solutions

Optimizing current deployments
Refine resource utilization and efficiency

Preparing for compliance audits
Complete risk assessment and regulatory alignment