

# WELL-Architected Framework

Questions	Notes
Operational Excellence	<ul style="list-style-type: none"><li>this pillar focuses on creating applications that effectively support production workloads:<ul style="list-style-type: none"><li>plan for and anticipate failure</li><li>Deploy smaller , reversible changes</li><li>script operations as code</li><li>Learn from failure and refine</li></ul></li></ul> <p><b>EXAMPLE:</b> CodCommit for version control</p>
Security	<ul style="list-style-type: none"><li>This pillar focuses on putting mechanisemes in place that help protect your systems and data</li><li>automate security tasks</li><li>encrypt data in transit and at rest</li><li>assign only the least privileges required</li><li>track who did what and when</li><li>ensure security at all application layers</li></ul> <p><b>EXAMPLE:</b> Configure Central logging actions in your account using CloudTrail</p>
Reliability	<ul style="list-style-type: none"><li>This pillar focuses on designing systems that work consistently and recover quickly :</li><li>recover from failure automatically</li><li>scale horizontally for resilience</li><li>stop guessing capacity</li><li>manage change through automation</li><li>Test recovery procedures</li></ul> <p><b>EXAMPLE:</b> Multi-AZ deployments using RDS</p>
Performance efficiency	<ul style="list-style-type: none"><li>This pillar focuses on the effective use of computing resources to meet system and buisness requiremennts while removing bottlenecks</li><li>use severless arechitecture first</li><li>Use multi-region deployments</li><li>delegate tasks to a cloud vendor</li><li>Expriments with virtual resources</li></ul> <p><b>EXAMPLE:</b> You can use Lambda to run code with zero administration</p>
Cost Optimization	<ul style="list-style-type: none"><li>This pillar focuses on delivering optimum and resilient solutions at the least cost to the user</li><li>utilize consumption-based pricing</li><li>Implement Cloud financial Managment</li><li>Measure overall efficiency</li><li>pay only for resources your application requires</li></ul> <p><b>EXAMPLE:</b> S3 intelligent-tiering to automatically move your data between access tiers based on your usage patterns</p>
Sustainability	<ul style="list-style-type: none"><li>This pillar focuses on enviremental impacts espicially energy consumption and efficiency</li><li>understand your impact</li><li>establish sustainability goals</li><li>use managed services</li><li>reduce downstream impact</li></ul> <p><b>EXAMPLE:</b> EC2 autoscaling you are maximizing utilization</p>