

**AWS Well Architected Framework**

At the end of this Post you are going to Know about the AWS WellArchitected Framework and its Uses

Before Going to the topic I want you guys have some Knowledge on AMAZON WEB SERVICES (AWS) . AWS is Cloud Platform offering database storage options,computing power, content delivery and other functionalities to scale up organizations.It allows us to select desired solution and pay only for the usage.AWS is totally based on 5 pillars.Those are Cost Optimization, Security, Reliability,Operational Excellence and Performance Efficiency.

AWS Bills us for usage only but it cannot stop the billing for underutilized resources .so for controlling the cost we need some plans or frameworks which not only supports the cost optimization and also helps with the other 4 pillars of AWS. So for this Problem AWS cameup with a solution in one of its Virtual Conference held by CTO Werner Vogels.For the design of our infrastructure ,they came up with “Well Architected Framework”.

Now we are going to learn about the below terms in depth

* What is AWS well Architected FrameWork
* What is AWS Well Archited review(WAR)
* Why we are using AWS WAR and what are its benifits

**What is AWS well Architected FrameWork**

The AWS Well-Architected Framework is a tool which helps Us to build the applications for the long term and also helps in building the application with more secure, efficient with good performance in optimized cost .

**The basic principles of the Well Architected Framework**

It is not at all easy to to design an application architecture for an application having millions of users because the costs will rise quickly and there is a need of well designed architecture.This architecture will help in the speed of application and costs.

So, The well Architected framework mainly focuses on the 5 pillars while designing an architecture for any application.

These pillars are:



**The AWS Well-Architected Framework is based on five pillars**

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

**AWS Well Architected Framework can accelerate innovation**

Dont came to conclusion that designing your application architecture with Well Architected Framework will be completed in a week . Its requires a lot of efforts to understand it and work accordingly with it.Because when we are in this, we get some changes while developing the applications,This well archirtected framework makes us to innovate faster,save costs and improve security.

**What is AWS Well Archited review(WAR)**

We already know that AWS is vast and we also know that daily they are giving so many updates and adding new resources.Those resources maybe helpful for us to reduce costs,speed etc..So, Because of this we have to review every resource that we use in our framework.For reviewing we are using a tool called “AWS Well Architected Review(WAR)”.

The AWS WAR provides a framework to evaluate the updated technologies and services that will improve our architecture and helps us to reduce our resource costs.This is done by reviewing an existing AWS workload against these five pillars.

WAR makes a review by approaching each of these pillars with a series of questions which are already designed for them to identify that the architecture is following AWS best practices or not for each pillar.

* Operational excellence: The ability to run and monitor systems to deliver business value and to continually improve supporting processes and procedures
* Security: The ability to protect information systems and assets while delivering business value through risk assessments and mitigation strategies
* Reliability: The ability of a system to recover from infrastructure or service failures, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues
* Performance efficiency: The ability to use computing resources efficiently to meet system requirements, and to maintain that efficiency as demand changes and technologies evolve
* Cost optimization: The ability to avoid or eliminate unneeded cost or suboptimal resources

**Why the AWS WAR is important**

The AWS WAR framework allows us to manage our AWS workload through a lifecycle approach.we get an oppurtunity to optimise our application using suitable cloud services while performing WAR.The recommendations from a reviewed workload often produce a more reliable, secure, and resilient workload that’s running with reduced cost. And they enable you to improve your AWS workload over time.

**Benifits of AWS WAR**

The AWS WAR helps you understand the pros and cons of decisions you make while building systems on AWS. Other benefits include:

* Insights and advice on how to apply the AWS Design principles to improve the AWS workload over time
* The ability to envision and plan a future state workload that has the highest level of security and reliability, and is optimized for performance and at a predictable cost
* The ability to make informed decisions about your architectures in a cloud-native way, and to understand the impact of design decisions
* Significant funding for each submitted and approved AWS workload in the way of usage credits; there are additional AWS-sponsored funding programs that can also be leveraged to improve your AWS workload

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