

# Performance Testing

**Performance Testing** is a type of software testing that ensures software applications to perform properly under their expected workload. It is a testing technique carried out to determine system performance in terms of sensitivity, reactivity and stability under a particular workload.

Performance Testing is the process of analyzing the quality and capability of a product. It is a testing method performed to determine the system performance in terms of speed, reliability and stability under varying workload. Performance testing is also known as Perf Testing.

## Performance Testing Attributes:

### Speed:

- It determines whether the software product responds rapidly.

### Scalability:

- It determines amount of load the software product can handle at a time.

### Stability:

- It determines whether the software product is stable in case of varying workloads.

### Reliability:

- It determines whether the software product is secure or not.

## Types of Performance Testing:

### Load testing:

- It checks the product's ability to perform under anticipated user loads. The objective is to identify performance congestion before the software product is launched in market.

### Stress testing:

- It involves testing a product under extreme workloads to see whether it handles high traffic or not. The objective is to identify the breaking point of a software product.

### Endurance testing:

- It is performed to ensure the software can handle the expected load over a long period of time.

### Spike testing:

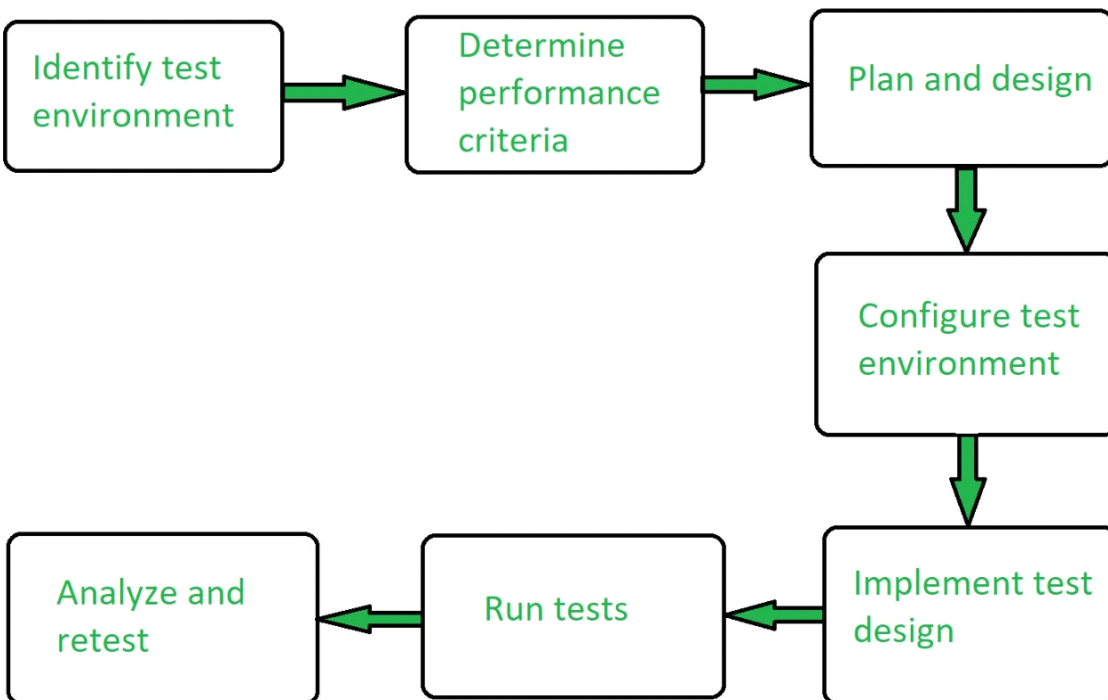
- It tests the product's reaction to sudden large spikes in the load generated by users.

### Volume testing:

- In volume testing large number of data is saved in a database and the overall software system's behavior is observed. The objective is to check product's performance under varying database volumes.

### Scalability testing:

- In scalability testing, software application's effectiveness is determined in scaling up to support an increase in user load. It helps in planning capacity addition to your software system.



### Advantages of Performance Testing :

- Performance testing ensures the speed, load capability, accuracy and other performances of the system.
- It identifies, monitors and resolves the issues if anything occurs.
- It ensures the great optimization of the software and also allows large number of users to use it on same time.
- It ensures the client as well as end-customers satisfaction.