

Types of Performance Testing

Type of Testing	Purpose	What It Tests	Example Scenario	Key Focus Area
Load Testing	Check how the system behaves under expected user loads.	Performance under normal conditions.	Testing a website with 1,000 users, as expected during peak hours.	Response time, throughput, resource usage.
Stress Testing	Check how the system behaves under extreme (overload) conditions.	Breaking point and system recovery.	Pushing 10,000 users on a site designed for 1,000.	Stability and error handling.
Endurance Testing	Check how the system behaves under sustained load over a long period.	Memory leaks, performance degradation.	Running a system with 1,000 users for 72 hours.	Stability over time.
Scalability Testing	Check how the system performs when the load is increased gradually.	Capacity limits and ability to scale.	Gradually increasing users from 100 to 10,000.	Efficiency and resource optimization.
Reliability Testing	Ensure the system performs consistently under various conditions.	Uptime and fault tolerance.	Checking if a service stays up after frequent restarts or network drops.	Consistency and error recovery.