Magento Performance Test Plan

1. Target Area for Testing

Checkout Process (Add to Cart → Checkout → Place Order)

2. Why Test This Area?

- It is the most important part for business. If it is slow or not working, customers cannot buy.
- This part gets very busy during sales or special events.
- It connects with many other systems like stock, shipping, and payments.

3. Test Scenarios

Scenario 1: Load Testing

- **Goal:** See how the system works with many users at the same time.
- **Steps:** Simulate 100, 500, and 1000 users adding products and placing orders.
- **Check:** Response time, server CPU and memory use, error rate.

Scenario 2: Stress Testing

- **Goal:** Find the limit of users the system can handle before problems happen.
- **Steps:** Increase users slowly from 1000 to 3000 and watch for failures.
- **Check:** Max users supported, recovery time after failure, errors vs. users.

Scenario 3: Spike Testing

- **Goal:** Test what happens when many users come suddenly.
- **Steps:** Start with 200 users, then quickly increase to 1000 in less than 10 seconds.
- **Check:** Response speed, order success rate, time to return to normal.

Scenario 4: Endurance Testing

- **Goal:** Check if the system stays stable for a long time.
- **Steps:** Run 300 users placing orders for 4 to 6 hours.
- **Check:** Memory leaks, database stability, slowdowns over time.

Scenario 5: Large Cart Testing

- **Goal:** Test the system with big shopping carts.
- **Steps:** Simulate carts with 20, 50, 100+ products and place orders.
- **Check:** Time to load cart, checkout speed, order submission time.