Project Development Phase
Performance Test

Date	28 March2025
Team ID	SWTID1742575574
Project Name	Grocery webapp
Maximum Marks	

Performance Testing:

The strategy involves testing across different devices and network conditions to ensure consistent user experience. Testing is conducted at both the component and end-to-end levels. The primary goals of performance testing for the Grocery WebApp include:

- Verifying the system's responsiveness and speed under various user loads.
- Ensuring reliability during high transaction volumes.
- Monitoring system behavior under stress to identify breaking points.

Scope of Testing

- Frontend performance (component load time)
- Backend API performance (data fetch/post)
- Database performance (MongoDB queries)
- Payment processing
- File upload (images)
- Concurrent user handling

Test Type	Purpose
Load Testing	To check app behavior under expected user loads
Stress Testing	To find the breaking point of the app under excessive load
Spike Testing	To verify behavior under sudden user spike
Endurance Testing	To validate app behavior over extended usage
API Performance	To check the speed and correctness of backend responses

File Upload Testing	To check image upload behavior under different sizes
Component Render	To test UI responsiveness (React Components, Lazy Loading, etc.)

Test Case	Action	Load Condition	Target	Actual	Verdict
TC-01	Homepage load	30 users	< 2s	1.5s	Pass
TC-02	Product listing	50 users	< 3s	2.6s	Pass
TC-03	Cart to checkout	100 orders	< 3.5s	3.2s	Pass
TC-04	Image upload	10 files	< 5s	2.9s	Pass
TC-05	Payments API	60 users	< 2s	1.4s	Pass