Performance Testing
User Acceptance

Date	20 February 2026
Team ID	LTVIP2026TMIDS81521
Project Name	DocSpot: Seamless Appointment Booking for Health
Maximum Marks	4 Marks

Objective:

To ensure the DocSpot platform performs efficiently under expected and peak user loads. This includes verifying system speed, stability, responsiveness, and reliability during common actions like booking appointments, uploading files, and dashboard navigation.

Key Areas Tested:

1. **API Response Time**
   - o Measured time taken for booking, login, doctor search, and profile updates.
   - o Target: Under 500ms per request during standard load.
   - o Result: Average response time stayed between 200ms–450ms, passing expectations.
2. **Concurrent Booking Load**
   - o Simulated multiple patients booking the same doctor at the same time.
   - o Verified no double-bookings occurred and slots updated in real time.
   - o Result: Slot collision logic held up successfully with concurrent operations.
3. **Page Load and Dashboard Rendering**
   - o Measured time to load patient, doctor, and admin dashboards.
   - o Emphasized mobile and desktop performance on various browsers.
   - o Result: Dashboards fully loaded under 1.5 seconds in most cases.
4. **Database Query Performance**
   - o Evaluated MongoDB query time for fetching user appointments and doctor lists.
   - o Indexed key collections (users, appointments) for faster access.
   - o Result: Queries remained under 400ms with no noticeable lag even under bulk data.

Conclusion:

The DocSpot system met all critical performance benchmarks for speed, responsiveness, and concurrent usage. Key optimizations like slot-locking, query indexing, and UI feedback ensured a smooth experience. The app is **ready for production**, with scope for further stress testing as user base grows.

Test Cases:

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail
TC-001	Patient Registration	1. Go to registration page 2. 2. Fill patient form 3. Click "Submit"	Account created successfully, redirected to patient dashboard	As expected	Pass
TC-002	Doctor Profile Setup	1. Login as doctor 2. Add bio and time slots 3. Save changes	Profile saved and visible after admin approval	As expected	Pass
TC-003	Appointment Booking	1. Login as patient 2. Search doctor 3. Select slot 4. Confirm	Appointment saved with status "Pending" and visible in dashboard	As expected	Pass
TC-004	Appointment Cancellation	1. Login as patient 2. Select appointment 3. Cancel	Appointment status updates to "Cancelled" for both patient and doctor	As expected	Pass