Worklog for Week 10 (17.03.2025 – 22.03.2025)

Objective: Integration and Testing (Part 2)

- Complete functional testing.

- Fix identified bugs and improve system performance.

Team Contributions:

Santhosh K (7376212IT221) – Backend Performance Tuning and Error Fixes

- Conducted functional testing of all backend APIs (/api/auth, /api/requests, /api/products).

- Fixed issues in requestController.js where rejected requests were not updating stock correctly.

- Enhanced MongoDB query performance using indexing on userId and productId fields.

- Resolved token expiry issue in authController.js by adjusting JWT expiration time.

- Fixed input validation errors in productController.js (missing fields).

- Improved server response times by reducing payload size and enabling gzip compression.

- Handled missing error responses for undefined API calls to improve debugging.

Jayasuriya J (7376212IT160) – Frontend Functional Testing and Bug Fixing

- Conducted functional testing on the **User Dashboard** and **Request Form** modules.

- Fixed UI inconsistencies in:

  - UserDashboard.jsx – Corrected rendering issues in real-time stock updates.

  - RequestForm.jsx – Fixed quantity validation error and ensured smooth request submission.

- Enhanced performance by optimizing state management using React.memo and useCallback.

- Improved API call efficiency by reducing redundant state updates in RequestForm.jsx.

- Verified request lifecycle from submission to approval/rejection.

- Fixed routing errors in React Router for dashboard navigation.

- Enhanced mobile responsiveness using CSS media queries.

Rakesh M (7376212IT208) – End-to-End Integration and State Sync

- Performed end-to-end testing of:

    o OrderTracking.jsx – Verified that tracking status is consistent with backend data.

    o RequestList.jsx – Ensured real-time sync between request lifecycle and stock updates.

- Fixed CORS issues when fetching data from backend.

- Improved state synchronization using useEffect and setState cleanup.

- Corrected state inconsistencies when switching between pending and approved requests.

- Improved response time of RequestList.jsx by reducing API call frequency.

- Fixed broken links and incorrect routes in Sidebar.jsx.

- Enhanced loading states and feedback messages for better user experience.

Praveen R (7376212IT201) – Admin Module Testing and UI Optimization

- Conducted functional testing on admin modules:

    o ManageInventory.jsx – Fixed UI misalignment and improved response time.

    o UserManagement.jsx – Ensured role-based access works as intended.

    o AdminDashboard.jsx – Verified accurate data rendering in Recharts.

- Fixed inventory update delay by adjusting backend query execution order.

- Resolved JWT token refresh issues causing logout during session expiry.

- Improved UI consistency across admin screens with global CSS styles.

- Added error messages for invalid admin actions (e.g., duplicate product names).

- Fixed inconsistencies in status updates when tracking pending requests.

- Enhanced data fetching by implementing lazy loading in admin components.