

Week 6 Worklog - Consumable Details Management Portal

Sprint Goal: Implementation of critical backend APIs and establishing secure data handling practices.

Work Done in Week 6

Santosh K - 7376212IT221

- Established **secure data handling practices**, ensuring **proper input validation & sanitization** to prevent SQL Injection & XSS attacks.
- Integrated **helmet & CORS middleware** to enhance security against common vulnerabilities.
- Implemented **request rate limiting** to prevent abuse of API endpoints.
- Optimized backend **logging & error handling mechanisms** for better debugging and monitoring.

Jayasuriya J - 7376212IT160

- Designed and implemented **core backend APIs** for handling user authentication, inventory, and material requests.
- Optimized **database queries** to improve API efficiency and reduce response times.
- Set up **role-based access control (RBAC)** to differentiate between **Admin and User roles**.
- Implemented **secure password hashing and authentication** using **JWT & bcrypt**.

Rakesh M - 7376212IT208

- Designed and **optimized MongoDB schema** for efficient data retrieval.
- Set up **indexing and query optimization** to improve performance.
- Implemented **transaction management** for bulk data operations to ensure data integrity.
- Assisted in **backend testing & debugging** to identify and fix API issues.

Praveen R - 7376212IT201

- Conducted **API testing** using **Postman & Jest**, ensuring correctness and efficiency.
- Identified and patched **security vulnerabilities** in API endpoints.
- Implemented **access control checks** to prevent unauthorized actions.
- Assisted in **debugging authentication & authorization issues**.

Week 6 Summary & Deliverables

- ✓ **Core backend APIs implemented** for user authentication, inventory, and request management.
- ✓ **Security best practices established**, including **role-based access control**, **input validation**, and **request rate limiting**.
- ✓ **API efficiency improved** through **optimized queries and database indexing**.
- ✓ **Thorough API testing completed**, ensuring correctness and security.