**1002EGC-211 Programming II**

Project: ShareIt

**Introduction**

**Team Name:** Java++

**Team Members :**

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**Project Overview:**

An Intra-College Sharing Platform - ***ShareIt***.

***ShareIt*** is a web-based tool that allows students to share and borrow items within their college community. It helps students list items they own for sharing, request items they need, and facilitates easy, sustainable resource exchange.

**Scope:**

* The scope of the application will strictly be limited to the IIITB campus.
* Listings and requests may include physical items or digital documents (e.g. notes) which can be uploaded to or downloaded from the web-app.

**Objectives**

* To create a clean and user-friendly UI with a home page, listing/request create page and listing details page.
* Implement a login page for users.
* Implement search functionality to get desired listings.
* Implement notifications for item requests and availability.

**System Overview**

* **Technical Specifications**

**Frontend:** HTML, CSS, Tailwind CSS, JavaScript, React.js

**Backend:** C++, Java and MySQL

**Middleware:** Java (Spring Boot) with Rest API, WebSocket API

* **Input/Output Requirements**

**Input:** User data on login and item data when creating a listing.

**Output:** Listings displayed on website, email notifications to users.

**Functional Requirements**

* **User Login:** Students will make an account and will enter details like their name, roll number, college email id, phone no. and room number. We will use JavaMailSender for email integration. OAuth2
* **Home page:** The home page will have a listings section which will be categorized by type of listing, a requests section which will again be categorized by type of request and a search bar to search specific listings. There will be 2 buttons: to create an item listing and to make an item request.
* **Notification Page:** This page contains all the notifications about the exchange done by the user along with the notification of item request made by the other users.
* **Listing/Request create page:** On selecting the create listing/request option on our home page, the user must fill a form providing the following details:
* Item name
* Item type
* Item quantity
* Item condition
* Item availability/request time window
* **Listing/Request detail page:** This page will appear when the user clicks on a listing/request. It will contain all the details entered for the listing/request along with a button to request/grant the item.

All the item data storage will be done through MySQL. For documents we will use cloud storage.

**Non-Functional Requirements**

Authentication, Payment Gateway, Chat, Reminder Notifications, Cloud Storage, Database