

Technical Assessment Assignment

Introduction

Welcome to the technical assessment! The goal of this assignment is to evaluate your ability to design and develop a production-ready application.

You are expected to develop a “Lost & Found” application using Java and Springboot.

Expectations:

- Use best practices in coding, design patterns, and architecture.
- Write clean, maintainable, and well-documented code.
- Ensure the application is production-ready, focusing on performance, scalability, and security.
- Implement comprehensive tests.
- Use any database of your choice for storing and retrieving data.

Requirements

Objective:

Develop a lost & found application that reads lost items from a file (e.g. PDF) provided by Admin and stores the extracted information. Users of this application can read the stored lost items and claim it.

Functional Requirements:

1. **Upload & Store Data:** A REST API Admin endpoint to upload the lost items with details from a file. The application should extract and store the following information from the uploaded file:
LostItem:
 - ItemName:
 - Quantity:
 - Place:
2. **Read LostItems:** A REST API user endpoint to read the saved Lost Items
3. **Claim LostItem Data and save:** A REST API user endpoint for users to claim the lost item.
For eg.
User 1001 claimed certain items and certain quantities from the retrieved list (2) and store them with their user id.

Note: One LostItem can be claimed by more than one user.

4. **Retrieved LostItems claimed by people:** A REST API Admin endpoint to read all the Lost items and Users (userId and name) associated with that.
5. **Retrieve user information from User Service:** This will be another service (a mock service) to get user details like Name of the user. Consider writing least code as this is only a mock.

Sample file content:

ItemName: Laptop
Quantity: 1
Place: Taxi

ItemName: Headphones
Quantity: 2
Place: Railway station

ItemName: Jewels
Quantity: 4
Place: Airport

ItemName: Laptop
Quantity: 1
Place: Airport

Submission Guidelines:

1. **Code Repository:** Host your code on a Git repository (GitHub, GitLab, Bitbucket, etc.).
2. **README:** Provide a README file with clear instructions on how to set up, run the application, and any other relevant information.
3. **Documentation:** Include documentation and inline code comments where necessary.
4. **Testing:** Ensure that your project includes tests.

Good luck, and we look forward to reviewing your submission!