

Lost & Found Item Tracker API

Software Requirements Specification (SRS)

1. Introduction

****1.1 Purpose****

The purpose of this project is to develop a RESTful API backend for a platform that allows users to post, search, and match lost and found items in their locality.

****1.2 Intended Users****

- General public
- Lost item finders
- Individuals who have lost personal items
- Admins who moderate the system

****1.3 Scope****

The application will allow users to:

- Register and authenticate
- Post lost or found items
- Upload images and details
- View/search items based on filters
- Match lost and found items
- Communicate securely
- Admin will monitor and manage data abuse

2. Overall Description

****2.1 Product Perspective****

This is a standalone backend service providing a public RESTful API.

****2.2 Product Functions****

- User registration and authentication

- Posting item reports
- Search/filter items
- Matching suggestion system
- Admin moderation

3. Functional Requirements

****User Account Management****

- Register
- Login/logout
- JWT/token-based auth
- Update profile
- Password reset

****Item Management****

- Post/edit/delete item
- Mark as resolved

****Search & Filter System****

- Search by name/category/location/date
- Sort by recency/proximity

****Matching System****

- Suggest items based on category + keyword + date

****Communication System****

- Secure contact request
- Contact allowed only after match

****Admin Panel****

- View all reports
- Flag/delete inappropriate content

4. Non-Functional Requirements

- Fast API responses (< 500ms)
- Secure auth
- Media validation
- Rate limiting
- Swagger docs
- Unit tests

5. Use Case Descriptions

****Register/Login****: Guest registers and logs in.

****Post Lost Item****: User submits a lost item.

****Post Found Item****: User submits a found item.

****Search Items****: User filters/searches items.

****Match Suggestion****: System recommends items.

****Contact User****: User contacts item poster.

****Admin Moderation****: Admin deletes/flags posts.

6. Project Scope

****In-Scope:****

- DRF API
- Auth
- CRUD items
- Matching
- Media uploads
- Admin tools
- Swagger docs

****Out-of-Scope (MVP):****

- Real-time messaging
- Advanced geolocation
- Notifications
- Payments
- Multilingual