Software Requirement Specification

A Project on

E-waste-management

Guided by

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Introduction

Electronic waste is the major growing concern of the world. Emergence of newer technologies and exponential growth of electronic usage leads to major accumulation of e-waste. There is need of an application easily accessible to individual and organization for efficient e-waste management in the form of recycle, reuse and refurbish. Hence, we choose e-waste management as our project.

The focus of our project e-waste management is to develop such a system that can be used to properly collect e-waste, recover and recycle material by safe methods, sell and buy electronic waste, dispose of e-waste by suitable techniques, and raise awareness of the impact of e-waste.

Purpose

The e-waste management system is now an online e-waste management website. Public will get the information about the e-waste material and aware others about it. We will collect the e-waste equipments from the sellers and it will be delivered to recycling companies with the help of agents.

Scope of the project

We are primarily trying to achieve following things:

- Collect e-waste from people or organizations
- Analyse whether e-waste can be recycled, refurbished or resale.
- Recycle the e-waste
- Resell the parts and products to the required organizations who want to recycle the products on their own (for example: Apple company recycles its own products).
- Enable people or organization to buy recycled products and sell old products.
- Analysis of the amount of natural resources recycled by the reports generated at each level of the system.
- Achieve maximum reusability by having an interaction between different networks (e.g.: countries like US, India, China, Singapore etc.) in an ecosystem.

Product Features

The project's aim is to provide an e-Commerce website for plants which is containing java (platform independent), React, API's for user.

Design Technology

- BACK END
- Spring Boot Hibernate.
- MYSQL for storage of data.

- FRONT END
- React
- CSS
- Bootstrap

Project Platform

Web Development: J2EE Spring Boot, React, MySQL

Functional Requirements

1. **User Management**
    - Users should be able to create accounts and log in to the system.
    - Users should have the ability to update their profile information.
    - Administrators should have access to manage user accounts.

2. **Request Management**
    - Users should be able to request e-waste pickups by providing details such as location, contact information, and type of e-waste.
    - The system should generate unique pickup request IDs for each request.
    - Users should be able to view the status and progress of their pickup requests.
    - Administrators should be able to manage and assign pickup requests to available resources.

3. **Agent Management**
    - Administrators should be able to manage agents, including adding new agents, updating information, and agents as active or inactive.
    - The system should maintain a database of accepted e-waste items at each agent.

- Administrators should be able to assign pickup requests to specific agent.

4. **Reporting**
    - The system should generate reports on the total e-waste collected.
    - Administrators should have access to generate custom reports based on various criteria, such as time period and location.

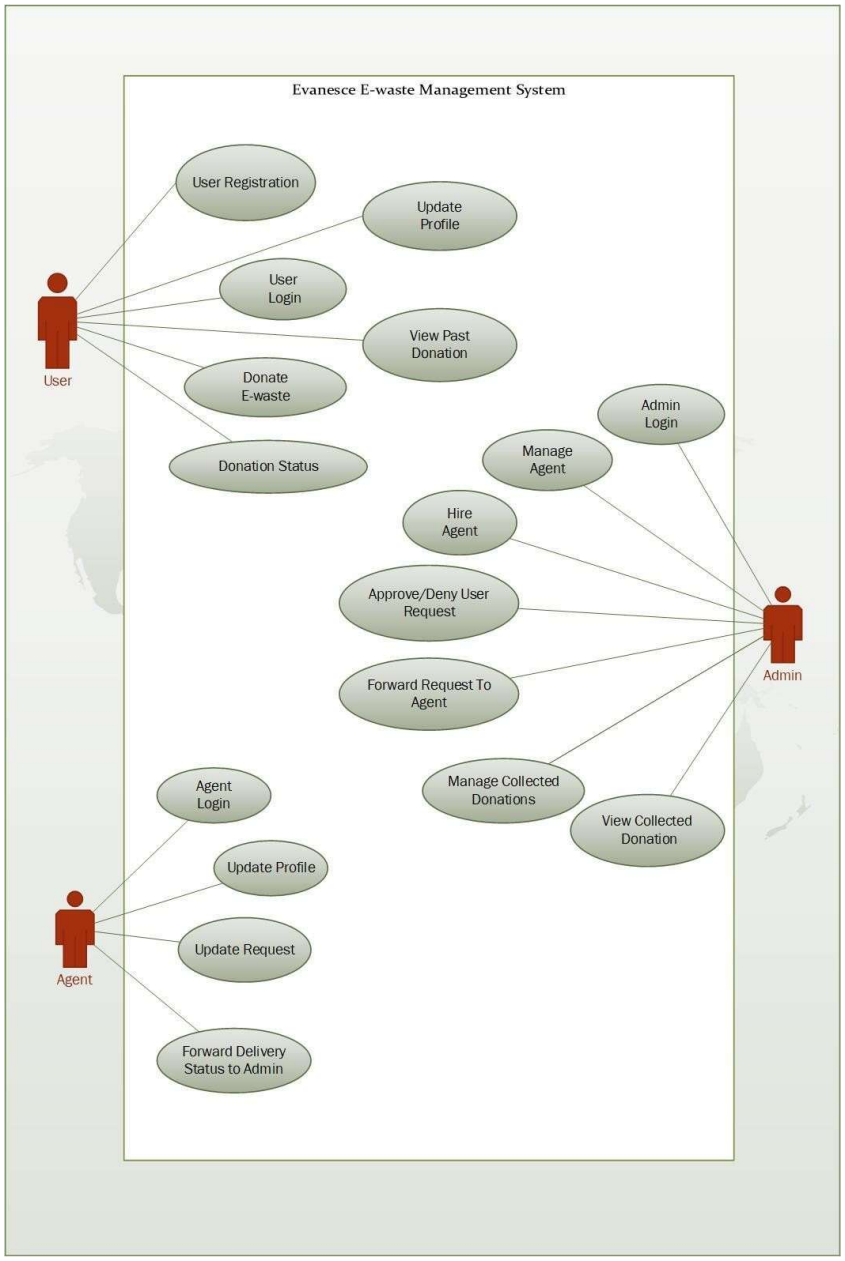
Non-Functional Requirements

1. **Usability**
    - The system should have a user-friendly and intuitive interface.
    - The system should be accessible from different devices and browsers.
    - The system should provide clear instructions and error messages.

2. **Performance**
    - The system should handle a large number of concurrent users.
    - Response times for user interactions should be minimal.

3. **Security**
    - User authentication and authorization should be implemented to ensure data privacy.
    - Data transmission should be encrypted using secure protocols.
    - Regular data backups should be performed to prevent data loss.

Use Case Diagram



Process Flow Diagram

Admin Module