# Software Requirements Specification

## for

# Online E-waste collection system

**Version 1.0 approved**

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# Revision History

| Name | Date | Reason For Changes | Version |
|------|------|--------------------|---------|
| Yuvarekha.M | 27/1/21 | Initial version | Version 1.0 |

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# 1. Introduction

## 1.1 Purpose

The main purpose of online e-waste collection system is to provide another way for the customer to buy/sell e-waste material.It is an automatic system to automate selling or buying of waste material and data is inserted into the database where admin need not worry about the orders being placed by the customer

## 1.2 Document Conventions

This document follows IEEE format for preparing Software Requirements Specification

## 1.3 Intended Audience and Reading Suggestions

This project is restricted within college environment.This is been implemented to be made useful to the e-waste collection team

Overall description:

The e-waste collection system should help a lot of users to understand the need and contribute the society in order to reduce the pollution level

## 1.4 Product Scope

Online e-waste collection system will reduce the e-waste from home,industries as numerous techniques are followed to acquire a waste material again by recycling methods which will tremendously reduce environmental pollution

## 1.5 References

IEEE recommended practice for Software Requirements Specification

# 2. Overall Description

## 2.1 Product Perspective

The product being developed is to encourage and promote the reduction of e-waste from home,industries to benefit a number of users by creating an awareness and recycling of waste material by using latest system which can operate in Windows operating system

## 2.2 Product Functions

E-waste collection system consists of following functions:
1)The system shall display the list of products
2)The system shall allow the customer to select a list of products to buy
3)The system shall allow the customer to give the details in order to sell the products
4)The system shall provide browsing options to go through the list of products
5)The system shall allow actors to update the information whenever required
6)The system shall display the order after payment

## 2.3 User Classes and Characteristics

### 2.3.1 Customer:
Customer can update their profile and can view the list of products to buy/sell by giving necessary details like name,address,phone number,email id and payment details in order to collect the products

### 2.3.2 Admin:

Admin can update the list of products and can view logs.By viewing logs,one can generate daily reports and monthly reports and can give option to pay

### 2.3.3 Collector agent:

Collector agent can collect the products where customer has ordered and can display the details like collection date.Collector agent also has a feature to receive the product which is sold by customer

## 2.4 Operating Environment

The software being developed will be running under Windows,Mac and Linux OS with specific hardware requirements with distributed database in client/server system

## 2.5 Design and Implementation Constraints

1)Internal hard drive can have memory limit upto 3GB where data cannot exceed beyond this limit

2)Connects only to Windows,Mac ,linux
3)It can run in web browsers like Chrome,Mozilla Firefox with minimum requirement of Windows 2007 version
4)Schema is made by implementing the database in centralized DBMS

## 2.6    User Documentation

For user documentation,external internal requirements like hardware information would be sufficient to know about the development of a software

## 2.7    Assumptions and Dependencies

Developed software like Windows prefereably and with required hardware components which is internally built and a product can be searched either to buy/sell by customers by making appropriate payment by providing the necessary details

# 3.    External Interface Requirements

## 3.1    User Interfaces

E-waste collection system user interface has specifically been designed for giving customers a convenience in order to buy/sell a product.According to the functionalities,customer can view the list of products and make the payment for the same in order to buy/sell a product.They can even know the product collection details after making payment

## 3.2    Hardware Interfaces

It can run in XP,Win7,Win8 and latest version of windows with 1GB RAM.Hard disk requirement could be 3GB with processor speed 2.0GHz

## 3.3    Software Interfaces

It is compatible with Mozilla Firefox,Chrome,Opera web browsers and Windows,Mac and Linux OS where database is updated with product details and customer information to meet the needs of customer

## 3.4    Communications Interfaces

Customer can update their details with assigned login and password where device can update itself within 10 minutes.They can easily view the products and can securely make the payment as it is user-friendly

# 4. System Features

## 4.1 System Feature

### 4.1.1 Description and Priority

E-waste collection system maintains customer information,list of products,collection details,option to buy/sell.It has a higher priority as many number of customers prefer to buy/sell the products of their choice

### 4.1.2 Stimulus/Response Sequences

1)Login button to go to main page

2)Search button  to search and display list of products

3)Collect or sell the products

4)Payment details to display the products and payment choice

5)Logout button to logout the session

### 4.1.3 Functional Requirements

### 4.1.3.1 Customer profile

1)The system shall allow user to set username and password

2)The system shall allow user to update their profile information

### 4.1.3.2 Product list

1)The system shall allow admin to login and add/delete product information

2)The system shall allow admin to update new products

### 4.1.3.3 Provide search facility

1)The system shall allow user to search the product information

2)The system shall allow the user to search for default available products on screen

### 4.1.3.4 Sell the products

1)The system shall allow user to confirm the order by making payment

2)The system shall  allow user to update the product as per their needs

### 4.1.3.5 Buy the products

The system shall allow the user to purchase the list of products by making payment according to their prefeered choice

### 4.1.3.6 Collection product list

1)The system shall enable the collector agent to display the collected products list to customer through admin

2)The system shall enable the collector to know the customer information through admin

### 4.1.3.7 Collection details

The system shall allow user to track details like collection date and collector can ensure about the payment details to the users

### 4.1.3.8 View logs

The system shall allow admin to view monthly reports and weekly reports in admin's module after customer's order

### 4.1.3.9 Payment

1)The system shall allow user to make the payments by either cash or card

2)The system shall allow the user to enter the payment details if the user chooses card option

3)The system shall allow admin to generate payment option for the customer and display it by giving either options like cash/card

### 4.1.3.10Product summary details

The collector will provide product summary details to the customer and they can logout

# 5.Other Nonfunctional Requirements

# 5.1 Performance Requirements

E-R Diagram can represent the logical structure of a database and redundancy can also be reduced by normalization technique

# 5.2 Safety Requirements

Backup of the database  should be restored in case of failure and transaction operations should be carried out after recovering the database in case of failure

## 5.3 Security Requirements

Database storage is similar to all other applications but choosing the database is much important for security reasons and this software is basically providing user-friendly environment in order to make customers feel better

## 5.4 Software Quality Attributes

Flexibilility,robustness and reusability should be maintained where clients can do system settings in order to maintain the quality

## 5.5 Business Rules

Two types of users such as customer and admin can access the website.Admin has full rights to control the system

## 6.Other Requirements

Each feature has its own requirements along with feature information.There are no additional requirements to be included

# Appendix A: Glossary

# Appendix B: Analysis Models

# Appendix C: To Be Determined List