SOFTWARE

          REQUIREMENT

        SPECIFICATION

**Chapter-3**

**Software requirement specification**

**3.1 Introduction:**

The software product is initiated by the client's needs. In the beginning, these needs are in the minds of various people of the client organization. The requirement analyst has to identify the requirements by talking to these people and understanding their needs. The inputs have to be gathered from different resources; these inputs may be inconsistent. The requirement phase translates the ideas in the minds of the clients into a formal document. Software Requirements Specification (SRS) document is a document that completely describes 'WHAT' the software must do without describing how the software will do it.

SRS describes the complete external behaviour of the proposed software. Software Requirement Specification (SRS) is a document, which describes completely the external behaviour of the software. The first and foremost work of a software developer is to study the system to be developed and specify the user requirements before going for the designing phase. This document will let us know how this system behaves and responds.

**3.2 Purpose:**

* To specify the requirements of the web-based software application, which is a CoolLens system.
* This Software Requirements Specification provides a complete description of all the functions and specifications of modules.
* To bridge the gap between the client and the developer.
* To help clients to understand their own needs.
* Changing requirements is an irritant task for software developers and may lead to bitterness among clients and the developers.
* To produce a high quality and stable SRS.

**3.3 Scope:**

* The document is the one that describes the requirements along with interfaces for the system.
* It is meant for use by the developers and will be the basis for validating the final delivered system. This SRS describes the requirements of the system.
* It is meant for use by the developer and will be the basis for validating the final delivered system; any changes made to the requirement in the future will have to go through the formal change approval process.
* This document contains a complete description of the functioning of CoolLens – online shopping website.

**3.4 Overview:**

The system helps in buying of various EYEWEAR items online by choosing the listed products from a website (E-Commerce site).

**3.5 Overall description:**

This section of the SRS describes all general factors of the product and its requirements.

**3.5.1 Product Perspective:**

The proposed system is a solution to carry out buying / selling Eyewear Items online.

**3.5.2 Product Functions:**

The system allows the user to buy/sell Eyewear Items online across internet connection globally.

**3.5.3 User Characteristics:**

There are 3 kinds of users for the proposed system.

* **Administrators:**

Administrator is the owner of this software, he can do anything in the software like add or administer the categories for the products, delete products, managing products also Administrators have full privilege of the website etc.

* **Vendors/Sellers:**

Vendors/Sellers will add their products to the database, which will be seen in the website to the end users or say customers who can buy the products by selecting the one they need. Vendors will have the special privileges than the end users, and have ability to manage the products added by them.

* **End Users/Customers:**

The end user will be the one who visits the website and buys products online from the ones added by the Vendor.

**3.5.4 General Constraints:**

* The main constraint here would be checking the genuineness of the buyer, which is not always possible.
* There can be security risks involved.
* The developed system should run under any platform (Unix, Linux, Mac, Windows etc..) that contains a web browser which supports JavaScript

**3.5.5 Assumptions and Dependencies:**

* The details related to the product, customer, payment and service transaction provided manually.
* Administrator is created in the system already.
* Roles and tasks are predefined.

**3.6 Specific Requirements:**

**3.6.1 External Interface Requirements:**

* **User Interfaces:**

            Each part of the user interface intends to be as user friendly as possible. The fonts and buttons used will be intended to be very fast and easy to load on web pages. The pages will be kept light in space so that it won’t take a long time for the page to load.

* **Hardware Interfaces:**
* **Processor**: Pentium or Higher.
* **RAM:** 4GB (Minimum)
* **Software Interfaces:**
* **Operating System:**  Unix, Linux, Mac, Windows etc...
* **Development tool:** Hypertext Pre-processor, JavaScript, Ajax.
* **Data Base**: SQLITE.
* **Communication Interface:**

The Website Order system shall send an email confirmation to the customer that the items they ordered will be delivered to the shipping address along with user identification.

1. **Functional Requirements:**

* **Customer profile module:**

Here once the customer is logged in his details will be stored and his details will be displayed in his profile.

* **Product module:**

In this product module customers can view all the Eyewear item list with name, image, description etc**.**

* **Product category module:**

The Eyewear items records are divided in categories. The customer can filter category wise**.**

* **Billing module:**

In this module customers can order for Eyewear items. They can order multiple items together. after successful payment the system display the order reports

* **Offer module:**

Here the admin can set discounts.

* **Contact module:**

In the contact module the customer can directly contact the website Admin customer and can view replies in the mail.

* **Tax module:**

The GST tax varies for the products, here the admin can set tax for each product.

* **Dashboard module:**

The dashboard can be used by multiple users like Admin, Seller. Each user has different kinds of roles**.**

* **Report module:**

This module is for administrators where admin can view order details, sales details etc. Admin can filter the records day wise, month wise, weekly wise.

**3.8 Design Constraints:**

There are few constraints that the system should follow. They are:

* All the inputs should be checked for validation and messages should be given for the improper data. The invalid data are to be ignored and error messages should be given.
* Details provided by the vendor during his sign up should be stored in the database.
* While adding the products to the system, mandatory fields must be checked for validation whether the vendor has filled appropriate data in these mandatory fields. If not, a proper error message should be displayed or else the data is to be stored in the database for later retrieval.
* All mandatory fields should be filled by the customer, while buying the items from the cart.

**3.9 Performance Requirements:**

* Should have a good memory space.
* Should be error-free.
* Should handle large amounts of data.

**3.10 Safety Requirements**:

Backups can be done regularly.

**3.11 Security Requirements:**

* SQLite server has a password.
* Administrator and the seller have only the right to open the software.
* Administrator has more rights than the other users i.e. employees.

1. **Software Quality Attributes:**

If the connection between the user and the system is broken prior to an order being either confirmed or cancelled, the System shall enable the user to recover an incomplete order.

* **RELIABILITY:**

It is tested for all the constraints at the development stage.

* **AVAILABILITY:**

This system will only be available till the system on which it is installed is running.

* **SECURITY:**

This system is provided with authentication without which no user can pass. So only the legitimate users can use the application. If the legitimate users share the authentication information, then the system is open to outsiders.

* **MAINTAINABILITY:**

There will be no maintenance required for the website. The database is provided by the end-user and therefore is maintained by this user.

* **PORTABILITY:**

 The system works anywhere with an internet connection.