

Group 3

Software Requirements Specification For

E-Classifieds

Group Members

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1. INTRODUCTION

1.1 Purpose

The purpose of this document is to give a detailed description of the requirements for the “E-Classifieds” web application. It will do so by illustrating a complete declaration of the development of the application. It was also specify the system constraints, and interactions with the external applications. This primary intention of this document is to propose this software to a consumer and in turn receive an approval.

1.2 Product Scope

E-Classifieds is a web application designed to provide sellers an interface to showcase their goods and communicate with consumers regarding their respective products. Accessing the application is free of cost for anyone with an active internet connection. Producers can upload advertisements and information about their products on the Web Portal. This information will act as the output of the search results queried by the users. A product can be associated with an expiry date and once it is exceeding there are removal and extension options. This application is limited to querying desired goods and does not include a payment or delivery mechanism.

1.3 Document Conventions

User	Someone who interacts with the web application.
Web Portal	A web application that provides facilities for advertisers and consumers.
Seller	Someone who intends to sell one or more item(s).
Buyer/Customer	Someone who intends to purchase a product.

1.4 Intended Audience and Reading Suggestions

This document is intended to developers and/or whomsoever it may concern. He/she may skip to a section if they wish to read about a specific topic. The dedicated page numbers are mentioned in the table of contents.

1.5 References

<https://cs.stackexchange.com/>

<https://www.tutorialspoint.com/dbms/index.html>

2. OVERALL DESCRIPTION

2.1 Product Perspective

This web application strives to be a replacement for newspaper classifieds. It offers a variety of features that makes buying and selling of products effortless while maintaining a user-friendly experience for the user. This product is independent and self-contained.

2.2 Product functions

- Provide a user-friendly interface to ease the process of buying and selling products.
- Users(Customers) can search categorically or specifically for items.
- Users(Sellers) can advertise their products for a certain period of time or indefinitely.
- Users(Customers) can sort through the database and explore the variety of products available.
- If a user wants to buy a product he can contact the seller through the site's messaging service.

2.3 User classes and characteristics

This application has 2 classes:-

- Customer – He/She is a user of the website who intends to buy product from a seller. A customer must have an account before he can make a purchase. All details of the customer is stored in a database.
- Seller – A seller is a user of the website who intends to sell items. Sellers must have an account before he/she can sell any item. All details of the customer is stored in a database. All products for sale under the seller is stored in another database.

2.4 Operating environment

- This application shall operate in newest versions of all web browsers.
- This application shall operate on all operating systems.
- This application shall operate on all systems with minimum hardware to run an internet browser.

- There should be no constraint on users being able to access the application at a given time.
- Information about products and users is stored in databases

2.5 Design and implementation Constraints

The user interface shall be implemented any tool like Notes, Sublime text, etc on following languages:-

MySQL	MySQL is an open-source relational database management system
PHP	PHP is a general-purpose programming language originally designed for web development
HTML	HTML is the standard markup language for documents designed to be displayed in a web browser
CSS	CSS defines style rules in separate CSS files.

2.6 User documentation

- Privacy policy
- User manual
- User agreement

2.7 Assumptions and Dependencies

- Users must be from the same region.
- Customers and sellers must have basic knowledge of computers and English language.
- All users must have an email and password for the account.
- Internet connection is mandatory.

3. EXTERNAL INTERFACES

3.1 User Interfaces

- The application has been designed to minimize the need for text input from the user.
- Error messages are clear and concise making it easy for the user to understand.

3.2 Software Interface

- The application supports all major web browser that will make it convenient for the user to access our system.
- Development tool: PHP, HTML
- Database: MySQL

3.3 Hardware Interface

- Since the application runs over the internet, the system must always be connected to the internet via a modem, etc.
- Backup storage for retrieval of data in case of unexpected failures.

3.4 Communication Interface

- The HTTP protocol is used to facilitate communication over the internet.

4. SYSTEM FEATURES

This section provides the functional overview of the application. The application will use PHP as front end and database MYSQL as back end. Functional modules implemented by the application will be as follows

1. Login
2. Post Advertisement
3. Purchase Products
4. Messages
5. Sale info

4.1 Login

- A registered user can enter their email-id and password to start their session.
- A user who is not registered can create a new account by entering name, mobile, email-id and a password.
- The user has an additional option to change password.

4.2 Post Advertisement

- A seller can post their advertisements by choosing the appropriate category and entering product details like product name, manufacturer, year of purchase etc.
- The seller is also expected to post a brief description about the product, an image and expiry date for the advertisements.

4.3 Purchase Products

- A buyer can view products either by searching for the item or by filtering the products based on category.
- If a buyer is interested in the product, he/she may contact the seller either using the in-built messaging system or by directly contacting the seller.
- Once the purchase of the product is done, the seller must update the product as sold.

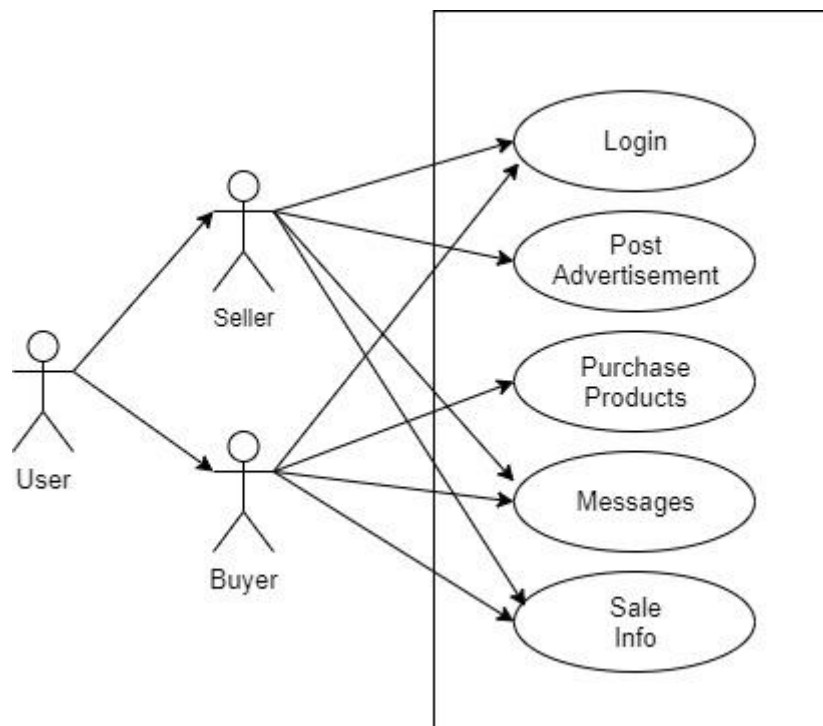
4.4 Messages

- A messaging system is service provided by the web application to establish a link between buyer and seller similar to emails.

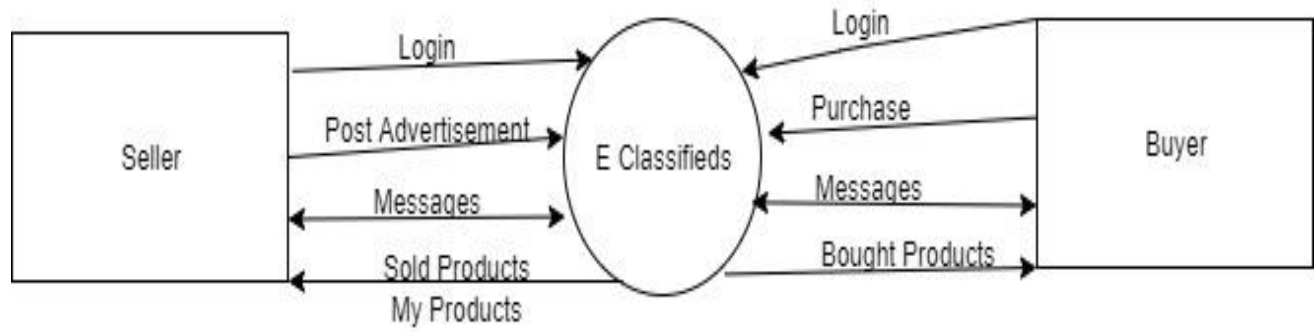
4.5 Sale Info

- A user can look at the current or previous sale info.
- Bought products displays the products bought by the user.
- Sold products displays the products sold by the user.
- My products display the products that are currently being advertised by the user.

Use case diagram



Level 0 DFD



5. OTHER FUNCTIONAL REQUIREMENTS

ASSUMPTIONS

- The server mentioned in this section is referred to a basic laptop acting as a server, performing all the required tasks that of a server.

5.1 Performance Requirements

- The product shall be web based and has to be run from a web server.
- The product shall take initial load time depending on proximity from the server and the internet connection.
- The load time may also depend on type of hardware used at the time of run.

5.2 Safety Requirements

- Backup and recovery personnel must ensure adequate back up of data as may be required by their operations. They should also have well documented and tested course of action that address all aspects of this web application's business.
- Both data and software should be backed up periodically.
- A contingency plan in case of major failures should be in place for e.g. an offsite back up storage which could be used for recovery.

5.3 Security Requirements

- Unique Login Id and password (may or may not be unique) for every user.
- The web browser will not display the password while entering in the field instead special characters will be echoed to assist the user.
- The system's backend will be accessible to only authorized personnel.
- The user can choose whether or not to choose to save his/her login details with the browser.
- A sign out button is provided for the user to logout.

5.4 Software Quality Attributes

5.4.1 Usability

- The web application created ensures smooth user experience for novice customers and is very straightforward with all the instructions provided if required at all points of time.
- In case of invalid situations a error message pops up on the screen, directing the user so as to resolve the issue.
- This web application can be used across all platforms thus ensuring portability for users.

5.4.2 Reliability

- The database is expected to hold stable after every valid/invalid transaction done by the user and is designed in a required manner to uphold stability.
- A change if any in the database is reflected without any delay.
- The system provides storage for all databases on redundant with automatic switchover.

5.4.3 Maintainability

- In case of a failure, a re-initialization of the program will be done.
- The web application is designed with anticipation of contemporary changes in mind that may take place, so that as and when required code can be changed or modified to suit the customers' needs.

5.4.4 Correctness

- All the functionality accounted for in this web application are ensured to produce only required output to maintain correctness.
- To achieve this this web application is strictly adhered to functional requirements.

5.5 Business rules

- This application will collect user data to assist the users in following aspects
 - Assist in technical difficulties
 - Provide customer service
 - To enforce to terms of agreement.