CHAPTER 1

INTRODUCTION

1.1 Background

A mart is an interactive website that provide an opportunity to users to buy electronics, electrical and hardware items. It delivers a constructive service to each and every person in India, to furnish their needs in terms of buying online and buying at affordable prices. This way of executing trade activities may be useful for organizations that serve customers who are distributed all over the India. The internet acts as an affordable link between customers and organizations whose goods and services they need. This lowers the costs incurred by customers and businesses in actualizing business transactions. With one well connected store, such organizations are in a position to serve a large number of customers.

1.2 Objectives

Ecommerce drives profitable growth by expanding customer reach, reducing cost-to-serve, and creating differentiated customer experiences. Utilizing this powerful tool wisely has become eminently important for business-to-business (B2B) companies. Looking at the current B2B environment, Ecommerce has proven to be a disruptive force. More and more B2B companies are moving a significant portion of the buying journey online, and these buyers are increasingly expecting a similar Ecommerce experience as consumers.

CHAPTER 2

SYSTEM ANALYSIS

2.1 Definition

System Analysis is the detailed study of the various operations performed by the system and their relationships within and outside the system. Analysis is the process of breaking something into its parts so that the whole may be understood. System analysis is concerned with becoming aware of the problem, identifying the relevant and most decisional variables, analyzing and synthesizing the various factors and determining an optional or at least a satisfactory solution. During this a problem is identified, alternate system solutions are studied and recommendations are made about committing the resources used to the system.

2.2 Existing system

In today's market, retailers and wholesale outlets should quickly adapt to the ever changing technology to minimize overhead, lower cost of operation, and help to stay competitive. Everybody needs software, which can facilitate store operations and make their day-to-day lives much easier.

2.3 Proposed System

This software application is targeted for small and medium retail stores who want to transform their paper- based inventory, sales, and procurement system to a computer- based system. This is an inexpensive and easy-to-use software application for easy transition to digital media. Also, this system is simple to maintain electronic,electric,hardware items, thus avoiding huge investments on enterprise or other types of servers.

CHAPTER 3

SYSTEM REQUIREMENTS

3.1 Functional Requirements

Functional Requirement defines a function of software system and how the system must behave when presented with specific inputs or conditions. These may include calculations, data manipulation and processing and other specific functionality. The functional requirements of the project are one of the most important aspects in terms of entire mechanism of modules.

The functional requirements here are:

- **Maintaining user:** interface responsiveness: If the application needs to perform a time-consuming task, multiple threads can be used to prevent user interface from becoming unresponsive while the task is in progress. If the program is downloading information from the Internet, this will keep the user-interface running at nearly full-speed while the download is in progress.

- **Simple Multitasking:** Multitasking allows to execute multiple instances of a process quit easily. The downloading routine just mentioned can be extended so that the program can transfer multiple files simultaneously and still keep the user interface well behaved. All that is needed is to create another thread for each file to download.

- **Building Multi-user Applications:** Multithreading is often used when building server applications. Server applications wait for request to arrive and then establish conversations with the requester.

- **Multiprocessing:** Many operating systems support machines with multiple processors. Most of these systems are unable to break a single thread of execution for execution on different processors. By breaking an application into different Threads, it is possible to make the best use of processing power.

3.2 Non-Functional Requirements

3.2.1 Reliability

The framework ought to be dependable and solid in giving the functionalities. When a client has rolled out a few improvements, the progressions must be made unmistakable by the framework. The progressions made by the Programmer ought to be unmistakable both to the Project pioneer and in addition the Test designer.

3.2.2 Security

Aside from bug following the framework must give important security and must secure the entire procedure from smashing. As innovation started to develop in quick rate the security turned into the significant concern of an association. A great many dollars are put resources into giving security. Bug following conveys the greatest security accessible at the most noteworthy execution rate conceivable, guaranteeing that unapproved clients can't get to imperative issue data without consent. Bug following framework issues diverse validated clients their mystery passwords so there are limited functionalities for all the clients.

3.2.3 Maintainability

The framework observing and upkeep ought to be basic and target in its approach. There should not be an excess of occupations running on diverse machines such that it gets hard to screen whether the employments are running without lapses.

3.2.4 Performance

The framework will be utilized by numerous representatives all the while. Since the framework will be facilitated on a solitary web server with a solitary database server out of sight, execution turns into a noteworthy concern. The framework ought not succumb when numerous clients would be utilizing it all the while. It ought to permit quick availability to every last bit of its clients. For instance, if two test specialists are all the while attempting to report the vicinity of a bug, then there ought not to be any irregularity at the same time.

3.2.5 Portability

The framework should to be effectively versatile to another framework. This is obliged when the web server, which s facilitating the framework gets adhered because of a few issues, which requires the framework to be taken to another framework.

3.2.6 Scalability

The framework should be sufficiently adaptable to include new functionalities at a later stage. There ought to be a typical channel, which can oblige the new functionalities.

3.2.7 Flexibility

Flexibility is the capacity of a framework to adjust to changing situations and circumstances, and to adapt to changes to business approaches and rules. An adaptable framework is one that is anything but difficult to reconfigure or adjust because of diverse client and framework prerequisites. The deliberate division of concerns between the trough and motor parts helps adaptability as just a little bit of the framework is influenced when strategies or principles change.

3.3 Hardware Requirements

- Processor type : Intel core i3 and above
- Processor speed : Minimum 2.00 GHz and above
- RAM : 4-8 GB
- HARD DISK : 400GB or more
- Monitor : 800x600 or higher resolution
- Keyboard : 110 keys enhanced

3.4 Software Requirements

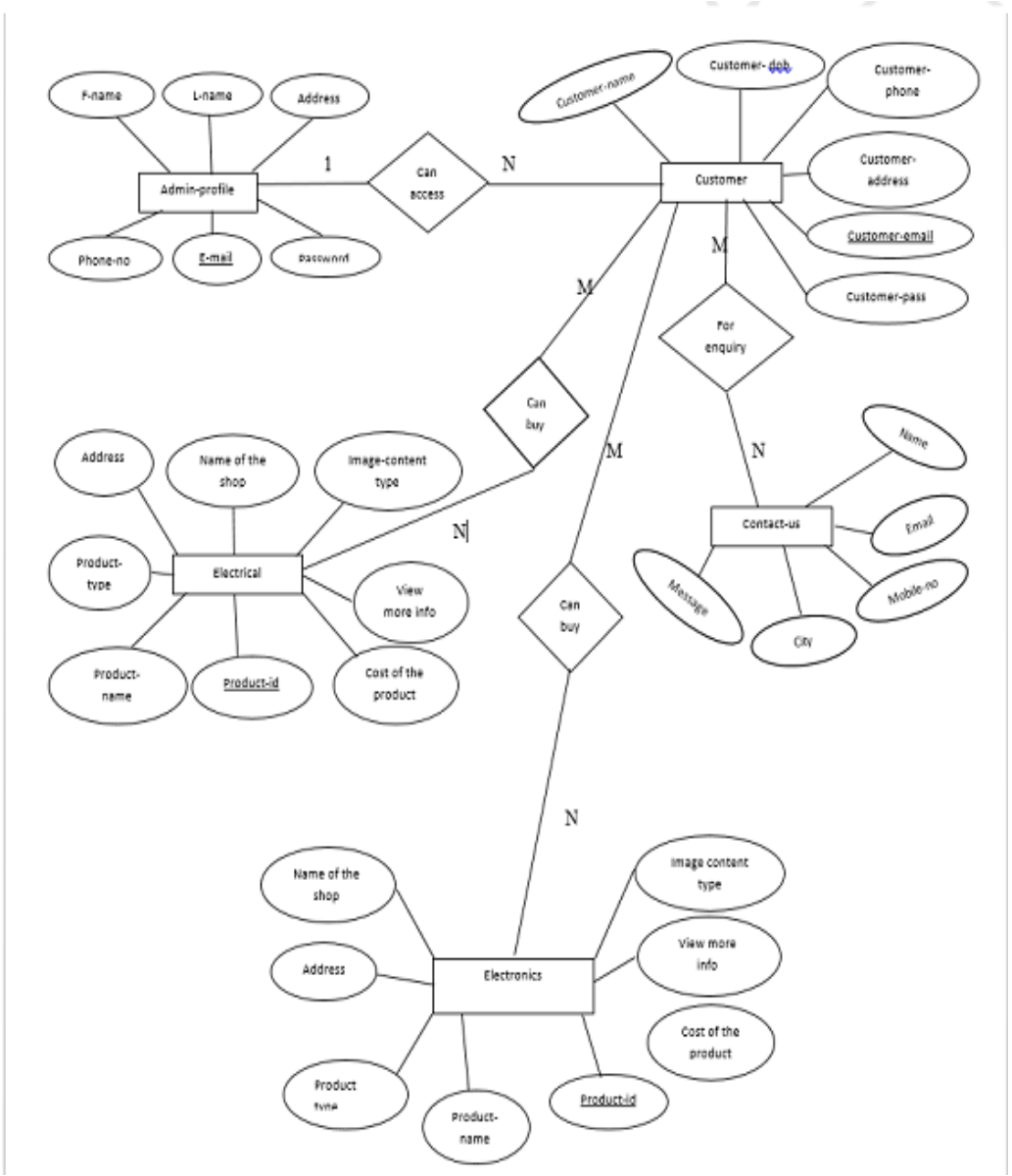
- Database : MYSQL database
- Server : Xampp server
- Operating System : Windows 7/8/10
- Front End : JSP, HTML, CSS,JS
- Back End : MYSQL

CHAPTER 3

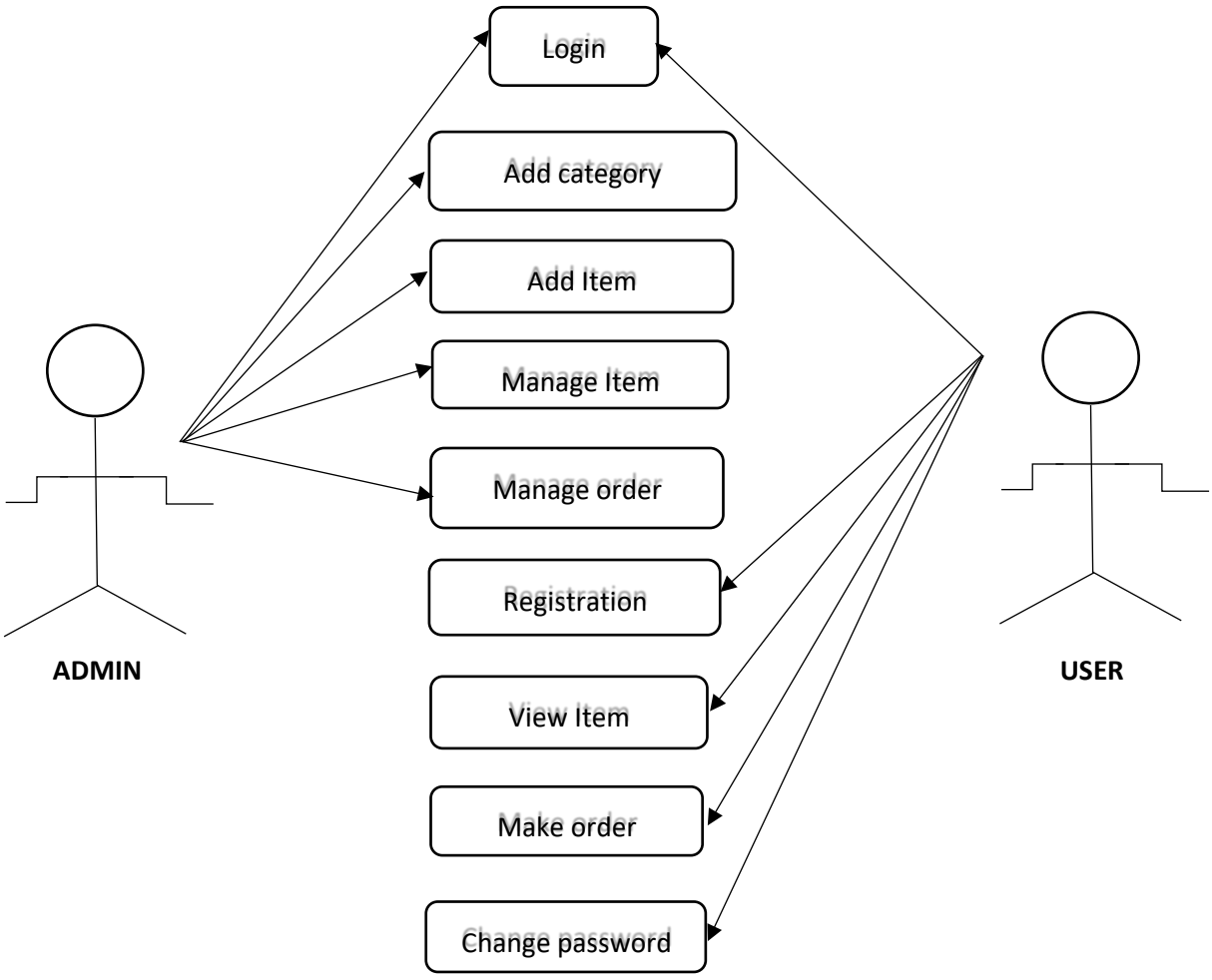
SYSTEM DESIGN

4.1 ER DIAGRAM

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects, or concepts relate to each other within a system. An Entity Relationship diagram describes inter-related things of interest in a specific domain of knowledge. An ER model is composed of entity types and specific relationships that can exist between instances of those entity types.



4.2 Use Case Diagram



4.4 Normalize the relations

4.4.1 Normalization

Database normalization, or simply normalization, is the process of organizing the columns (attributes) and tables (relations) of a relational database to reduce data redundancy and improve data integrity. Normalization is accomplished by applying some formal rules either by a process of synthesis or decomposition. Synthesis creates a normalized database design based on a known set of dependencies. Decomposition takes an existing database design and improves it based on the known set of dependencies. There are three types of normal forms:

- 1NF (First Normal Form)
- 2NF (Second Normal Form)
- 3NF (Third Normal Form)

4.4.1.1 First Normal Form

First normal form is considered to be part of a relation in the basic relational model. It disallows multivalued attributes, composite attributes, and their combinations. It states that the domain of an attribute must include only atomic values and that the value of any attribute must be a single value from the domain of the attribute. Hence, 1NF disallows having a set of values, a tuple of values, or a combination of both as an attribute value for a single tuple. 1NF disallows relation within relations or relations as attribute values within tuple.

4.4.1.2 Second Normal Form

Second normal form is based on the concept of full functional dependency. A functional dependency X→Y is a full functional dependency if removal of any attribute A from X means that the dependency does not hold anymore; i.e., for any attribute A f X,(X-{A}) does not functionally determine Y. A functional dependency X→Y is a partial dependency if some attribute a f X can be removed from X and the dependency still holds.

4.4.1.3 Third Normal Form

Third normal form is based on the concept of transitive dependency. A functional dependency X→Y in a relation schema R is a transitive dependency if there exists a set of attributes Z in R

that is neither a candidate key nor a subset of any key of R^{11}, and both X→Z and Z→Y hold. The dependency is transitive because both the dependencies is neither a key itself .

CHAPTER 5

SYSTEM IMPLEMENTATION

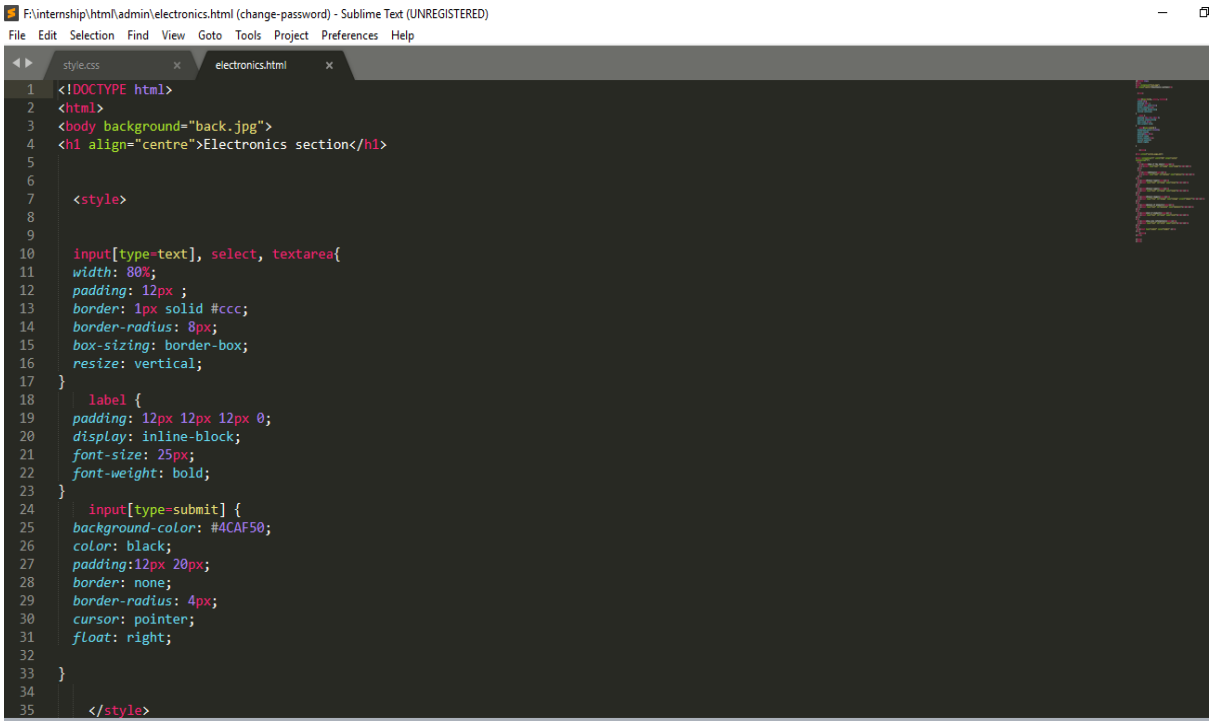
5.1 Tools used

HTML file

Applying quick edit to HTML elements will display all corresponding CSS properties in a box beneath the selected element. Users can choose to create new CSS rules directly within the editor and edit a tag's CSS properties inline without leaving the context of the HTML file.

JavaScript file

On JavaScript functions, quick edit performs the same procedure as with HTML elements, but it displays the selected function's body within the drop down box. All updates to the function's body will propagate and update directly within the corresponding JavaScript file.Files containing hex or RGB color properties for color properties, quick edit will return an inline color picker for previewing and color adjustment functionality.



5.1.2 MySQL

What is a database? Quite simply, it's an organized collection of data. A database management system (DBMS) such as Access, FileMaker Pro, Oracle or SQL Server provides you with the software tools you need to organize that data in a flexible manner. It includes facilities to add, modify or delete data from the database, ask questions (or queries) about the data stored in the database and produce reports summarizing selected contents.

5.1.2.2.1 Create a connection to a database

Before you can access data in a database, you must create a connection to the database. In PHP, this is done with the mysqli_connect() function.

Example

In the following example we store the connection in a variable ($con) for later use in the script. The "die" part will be executed if the connection fails:

```
<?php $con=mysqli_connect("localhost","root","");
If(!$con)
{
die('Could not connect:'.mysqli_error());
}
//some code
?>
```

5.1.2.2.3 Create a Database

The CREATE DATABASE statement is used to create a database in MySQL.

Syntax

CREATE DATABASE database_name

To get PHP to execute the statement above we must use the mysql_query() function. This function is

used to send a query or command to a MySQL connection.

The CREATE TABLE statement is used to create a table in MySQL

5.2 Languages used

5.2.1 JSP

Java Server Pages (JSP) is a collection of technologies that helps software developers create dynamically generated web pages based on HTML, XML, SOAP, or other document types. Released in 1999 by Sun Microsystems, JSP is similar to PHP and ASP, but uses the Java programming language. JSP may be viewed as a high-level abstraction of Java servlets. JSPs are translated into servlets at runtime, therefore JSP is a Servlet; each JSP servlet is cached and re-used until the original JSP is modified.

Java Server Pages (JSP) is a technology for developing Webpages that supports dynamic content. This helps developers insert java code in HTML pages by making use of special JSP tags, most of which start with <% and end with %>.JSP pages use several delimiters for scripting functions. The most basic is <% ... %>, which encloses a JSP scriptlet. A scriptlet is a fragment of Java code that is run when the user requests the page. Other common delimiters include <%= ... %> for expressions, where the scriptlet and delimiters are replaced with the result of evaluating the expression, and directives, denoted with <%@ ... %>.

Java code is not required to be complete or self-contained within a single scriptlet block. It can straddle mark-up content, provided that the page as a whole is syntactically correct. For example, any Java if/for/while blocks opened in one scriptlet must be correctly closed in a later scriptlet for the page to successfully compile. This allows code to be intermingled and can result in poor programming practices.

A Java Server Pages compiler is a program that parses JSPs, and transforms them into executable Java Servlets. A program of this type is usually embedded into the application server and run automatically the first time a JSP is accessed, but pages may also be precompiled for better performance, or compiled as a part of the build process to test for errors.

The JSP syntax add additional tags, called JSP actions, to invoke built-in functionality.[5] Additionally, the technology allows for the creation of custom JSP tag libraries that act as extensions to the standard JSP syntax.[7] One such library is the JSTL, with support for common tasks such as iteration and conditionals (the equivalent of "for" and "if" statements in Java).

JSP connectivity

MySQL JSP Database Connect Demo

Example

Enter your database name: test418 database error

Copy the code into your JSP directory under /usr/local/etc/httpd/htdocs/html/LOGIN (where LOGIN is your login name). You will need to change the 'xxxxxx' of "con=DriverManager.getConnection("jdbc:mysql://localhost/"+db,user,"xxxxxxx");" to reflect your MySQL password. Copy the HTML form (right click and view source) to the same directory above or to your public_html directory and use it connect to your database via the JSP code. Replace the 'test418' with your database name and the URL with your JSP URL.

<%@ page import="java.sql.*"%> <html> <head> <title>JDBC Connection example</title> </head> <body> <h1>JDBC Connection example</h1> <% String db = request.getParameter("db"); String user = db; // assumes database name is the same as username try { java.sql.Connection con; Class.forName("org.gjt.mm.mysql.Driver"); con = DriverManager.getConnection("jdbc:mysql://localhost/"+db, user, "xxxxxxx"); out.println (db+ "database successfully opened."); } catch(SQLException e) { out.println("SQLException caught: " +e.getMessage()); } %> </body> </html>

3 XAMPP

XAMPP is a software distribution which provides the Apache web server, MySQL database (actually MariaDB), Php and Perl (as command-line executables and Apache modules) all in one package. It is available for Windows, MAC and Linux systems. No configuration is necessary to integrate Php with MySQL. XAMPP's ease of deployment means a WAMP or LAMP stack can be installed quickly and simply on an operating system by a developer, with the advantage that common add-in applications such as WordPress and Joomla! can also be installed with similar ease using Bitnami.

Apache plays the role of processing the HTTP request. It is the actual default web server application. It is the most popular web servers maintained by Apache Software Foundation. MySQL The role of database management system in XAMPP is played by MySQL. It helps to store and manage collected data very efficiently. It is an open-source and most popular. PHP is the server-side scripting language which stand for Hypertext Preprocessor. It is embedded with HTML code which interacts with the webserver. It is an open-source and work well with MySQL and has become a common choice for web developers.

Perl is the high-level programming language designed for text editing which serves purpose like web development and network programming.

4.3.1 Features

XAMPP is regularly updated to the latest releases of Apache, MariaDB, PHP and Perl. It also comes with a number of other modules including OpenSSL, phpMyAdmin, MediaWiki, Joomla, WordPress and more.[9] Selfcontained, multiple instances of XAMPP can exist on a single computer, and any given instance can be copied from one computer to another. XAMPP is offered in both a full and a standard version (Smaller version).

- It is free and easy to use and easily available for Windows, Linux and Mac OS .
- It is a beginners friendly solution package for full stack web development.
- It is a open source software package which gives a easy installation experience.
- It is very simple and lightweight to create set up for development, testing and deployment.
- It is a time-saver and provides several ways for managing configuration changes.
- It handles many administrative tasks like checking the status and security.
- It is Easy to Install as compare to other web server's like WAMP.
- It is Multi Cross Platform which means XAMPP is available for Windows and Linux.
- It also comes with a number of other modules including OpenSSL, phpMyAdmin, MediaWiki, Joomla, WordPress and more.
- XAMPP is offered in both a full and a standard version (Smaller version).
- You can start and stop the whole webserver+database stack with one command.

4.3.2 Uses

The most obvious characteristic of XAMPP is the ease at which a WAMP webserver stack can be deployed and instantiated. Later some common packaged applications that could be easily installed were provided by Bitnami.

Officially, XAMPP's designers intended it for use only as a development tool, to allow website designers and programmers to test their work on their own computers without any access to the Internet. To make this as easy as possible, many important security features are disabled by default. XAMPP has the ability to serve web pages on the World Wide Web. A special tool is provided to password-protect the most important parts of the package.

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CHAPTER 6

RESULTS

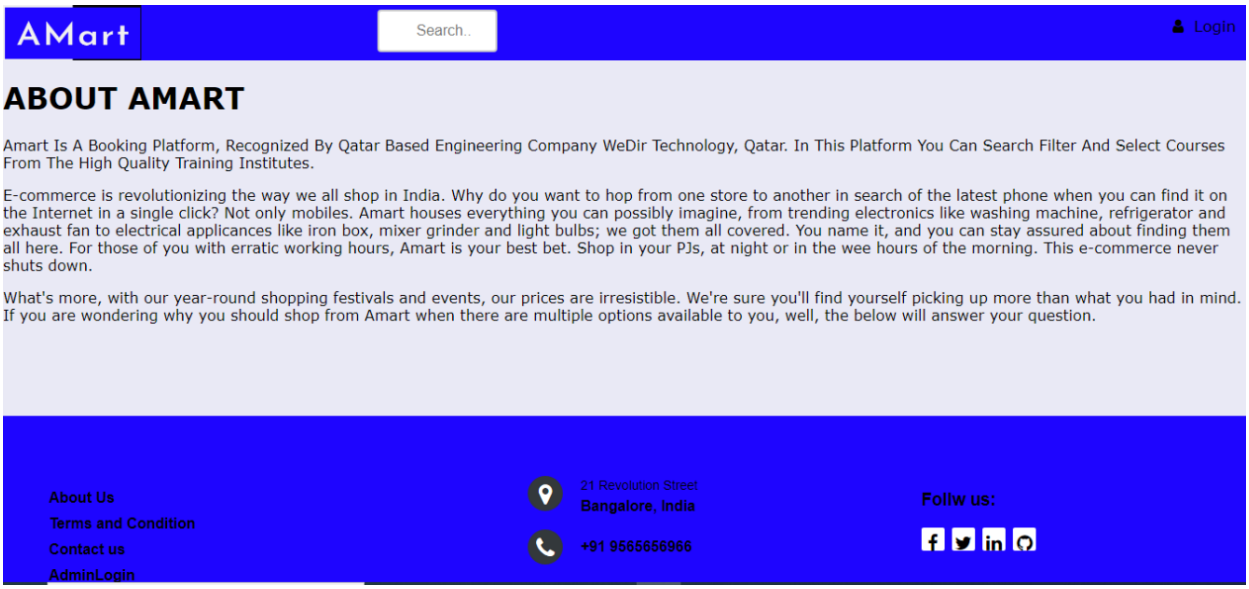

fig1 About us

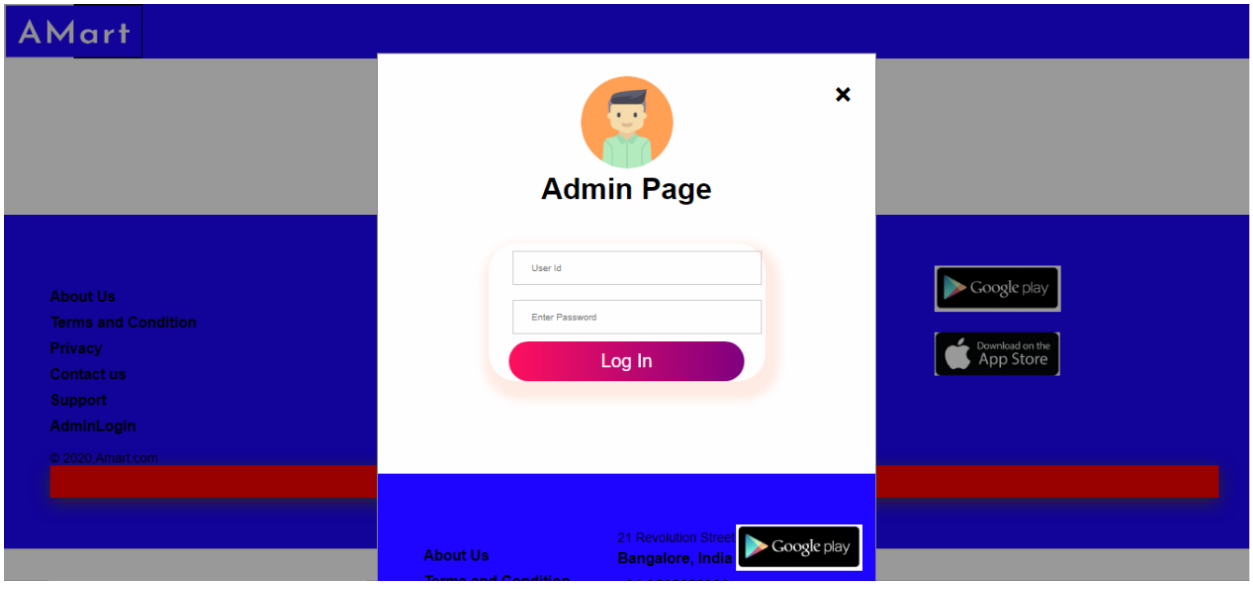

Fig 2 admin page

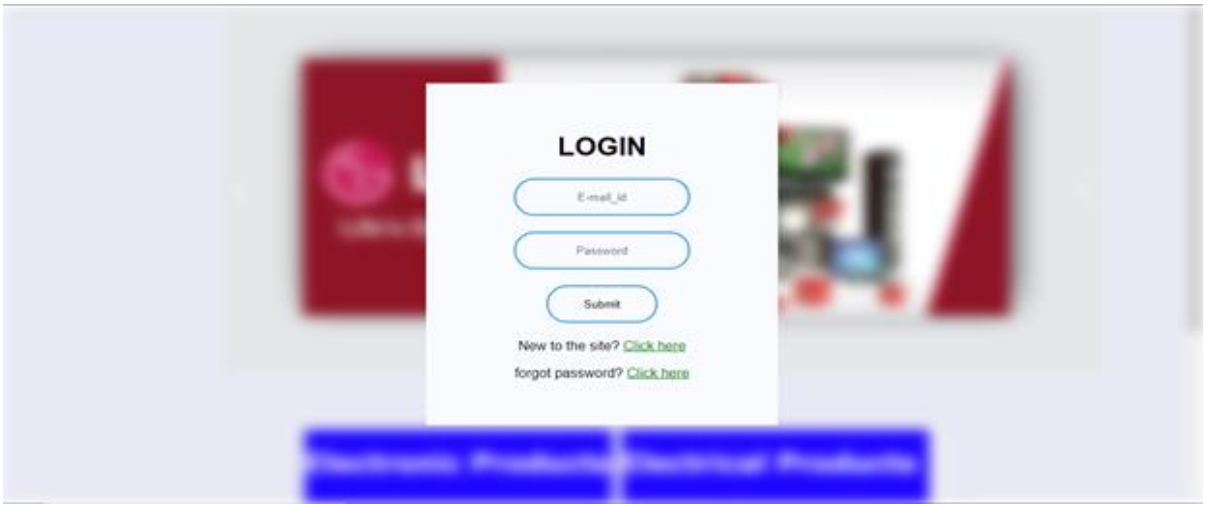

Fig3 Customer login

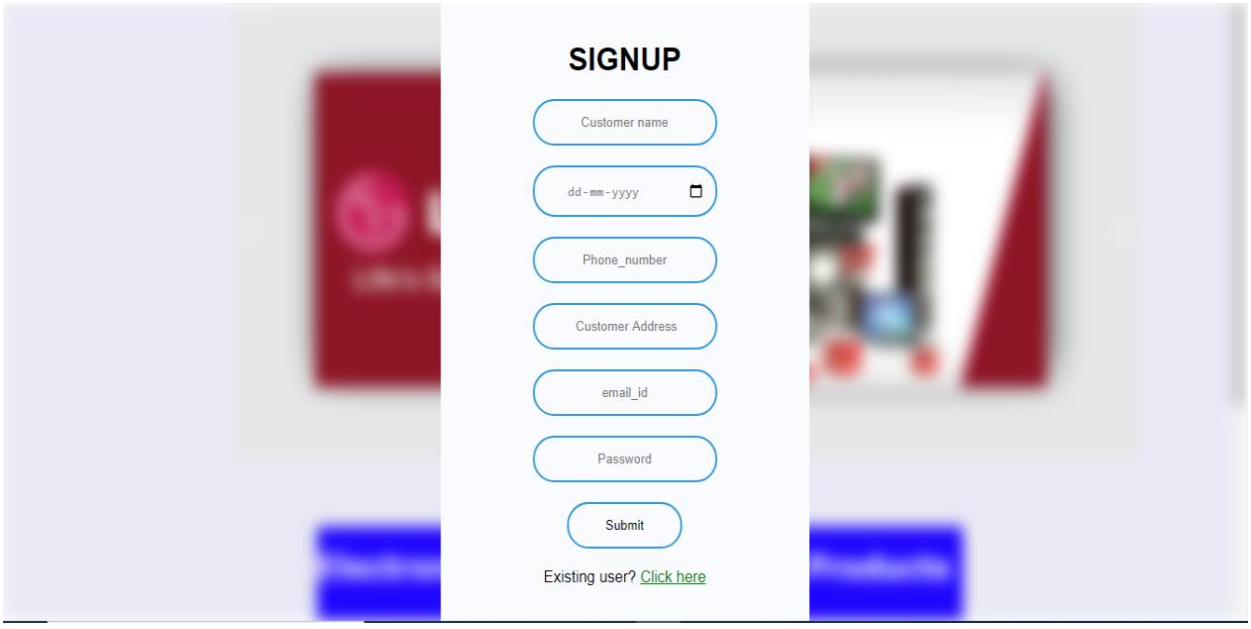

Fig4 Customer signup

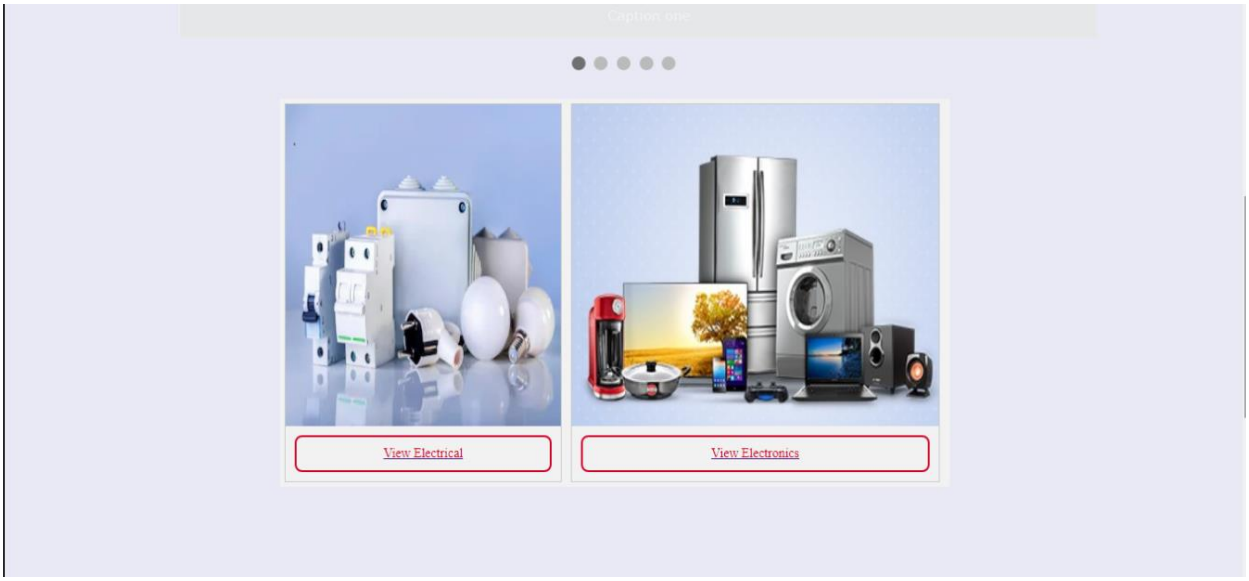

Fig4 Customer homepage

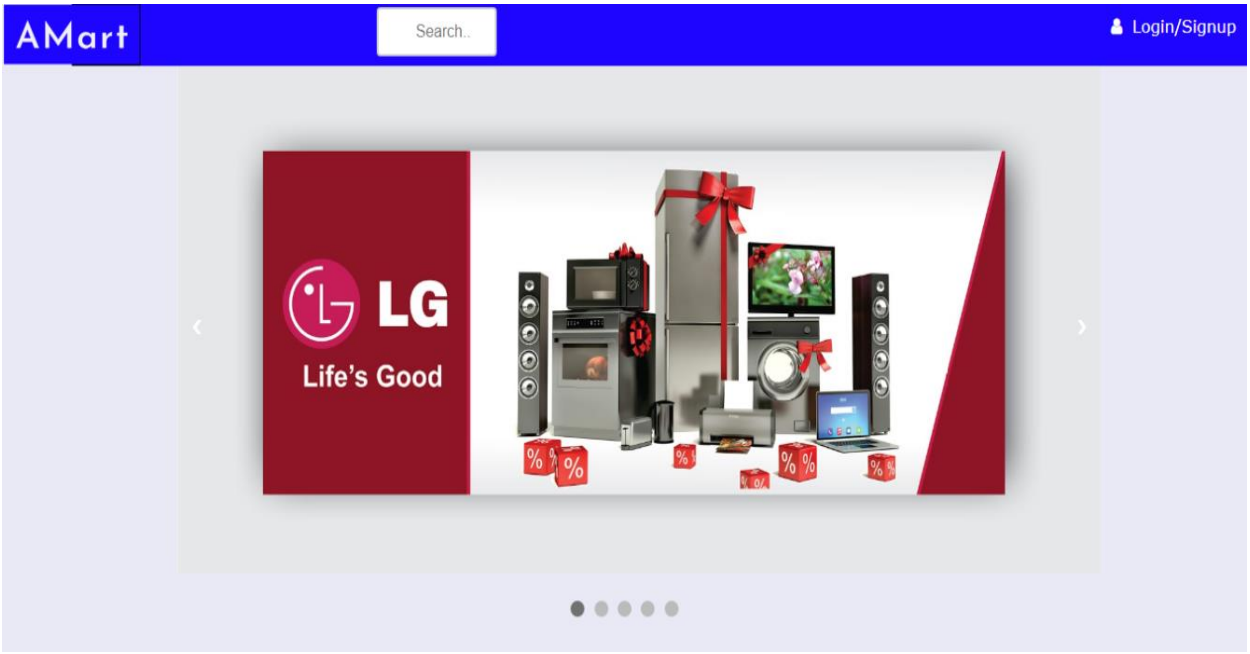

Fig5 Homepage

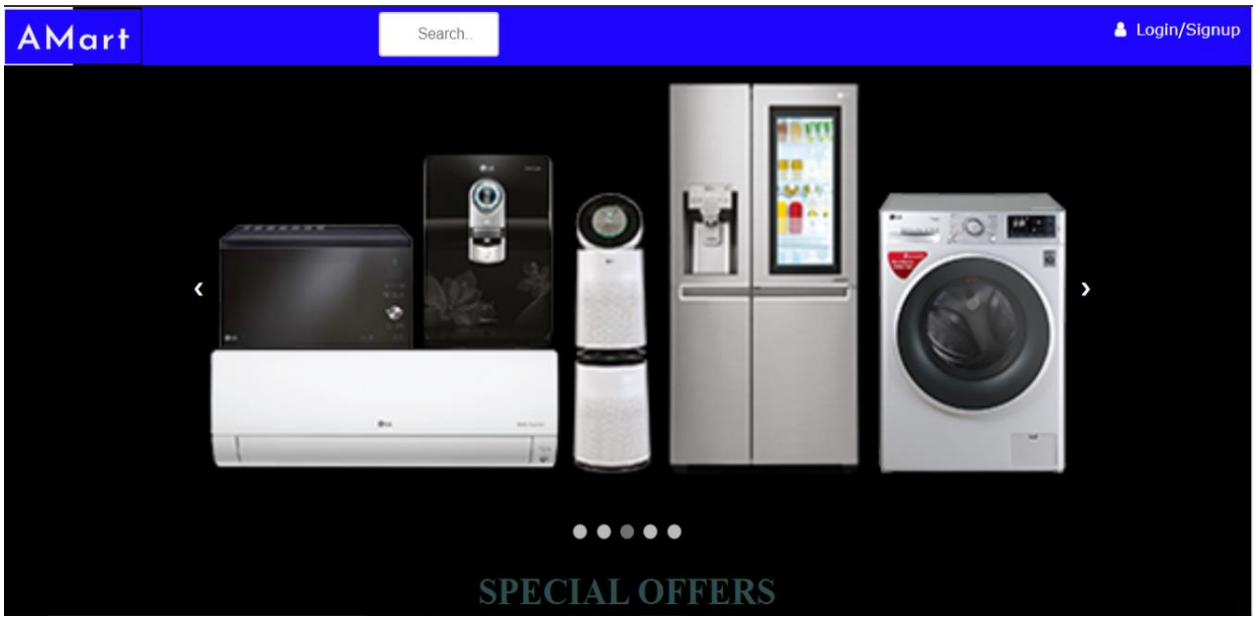

Fig6 Darkmode homepage

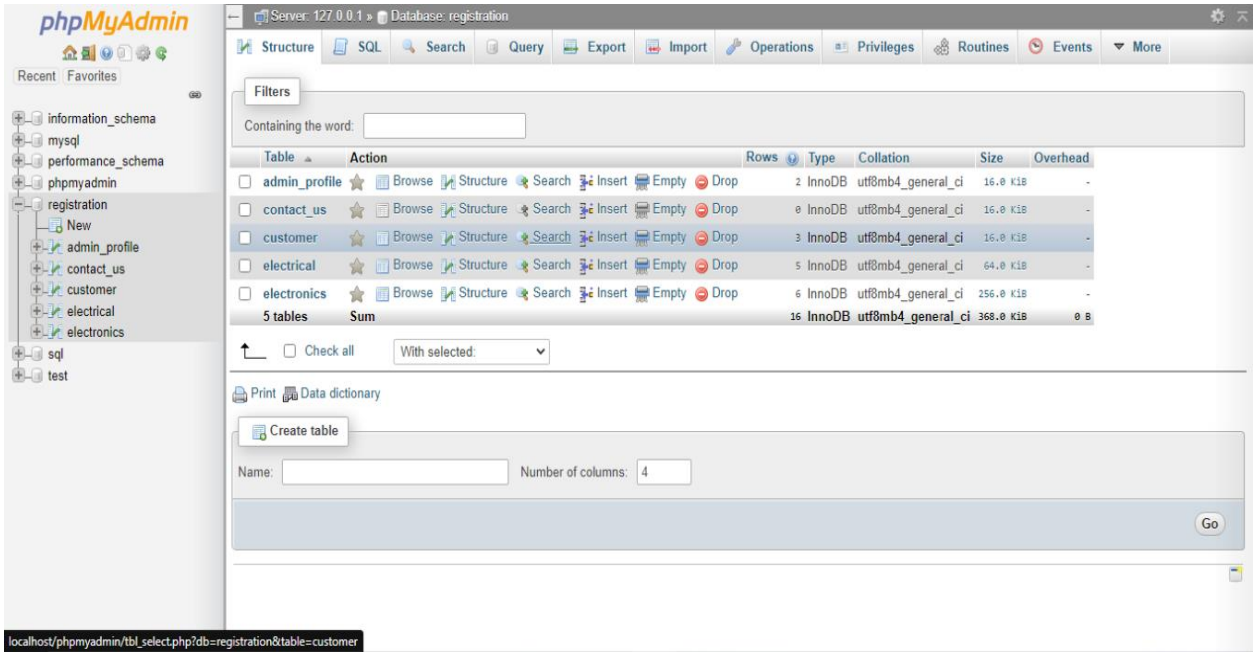

Fig7 Database

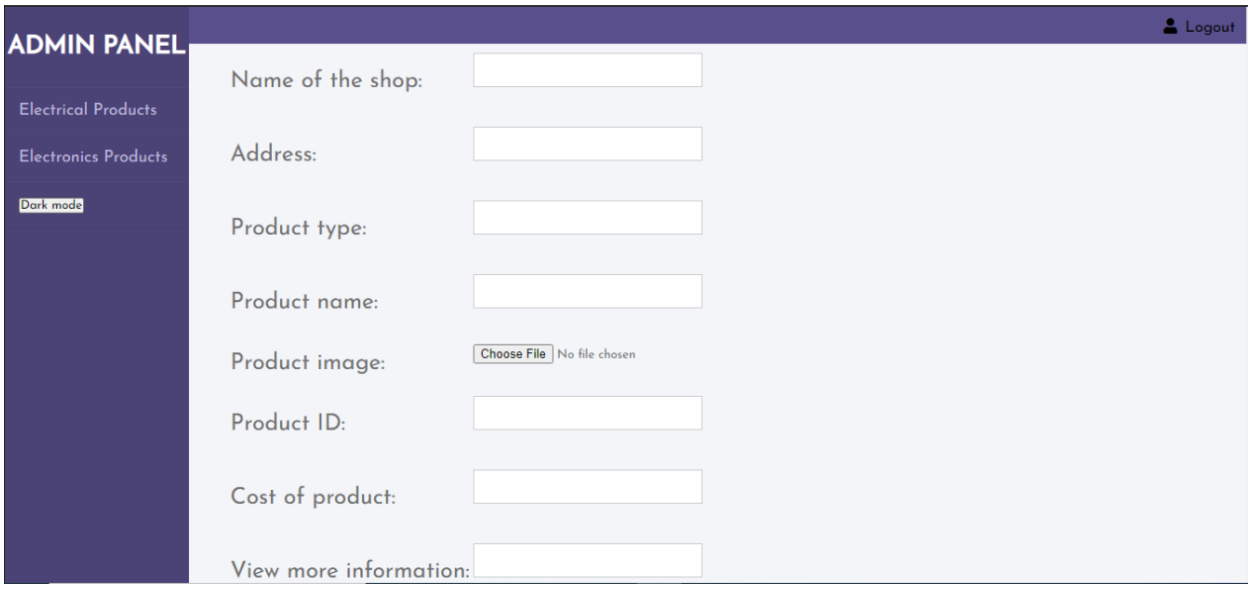

Fig9 electrical add

Fig10 electrical Products

Fig10 electonics Product

CHAPTER 7

CONCLUSION & FUTURE ENHANCEMENT

We have successfully implemented the site “A Mart” with the help of various tools, we have been table to provide a site which will be live soon and running on the website. We have been successful to take care of the needs of both the user and the administrator. Finally, we hope this will go long way in popularizing. The E-commerce website report based on the product that will fulfil the business needs as well it will be helpful for users also. The E-commerce website is a complex website. It is need to develop it with module formulation. To accomplish all the functionality of website, each module in necessary to completed with full accuracy.

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