Department of Technical Education Capstone project Format- 5 Capstone project Execution Document

Capstone project Name: E-Commerce online medicine shopping

Capstone project Members:

[339CS20010]
[339CS20020]
[339CS20027]
[339CS20031]

Main Deliverables –

1) **Design:**

Description of the components in the system

1. Admin Login:

Admin must login with correct details. Admin must have correct username and password details that matches the parameters. Admin manages whole of the process from adding categories, products to the appropriate category, product details and images, offers on the products, viewing the order list.

2. Manage Categories:

Categories are according to admin's requirement and are managed by admin itself. There can be number of different categories where products can be viewed according to category they belong.

3. Manage Products:

The products are added to the respective categories. Here the products are displayed with their correct names, description along with image.

4. View Orders:

Here admin can view the orders which are ordered by the users(customer's).

5. Offers:

There will be offer's on the products where users get offers on the products they ordered where a coupon code is generated using the code the discount is given on the order.

6. User Registration:

Here user must register with correct details like name, username, password, email, phone-number, and address where user gets username and password to login.

7. User Login:

User can login using this correct details as he gets a username and password above for easy access to order products.

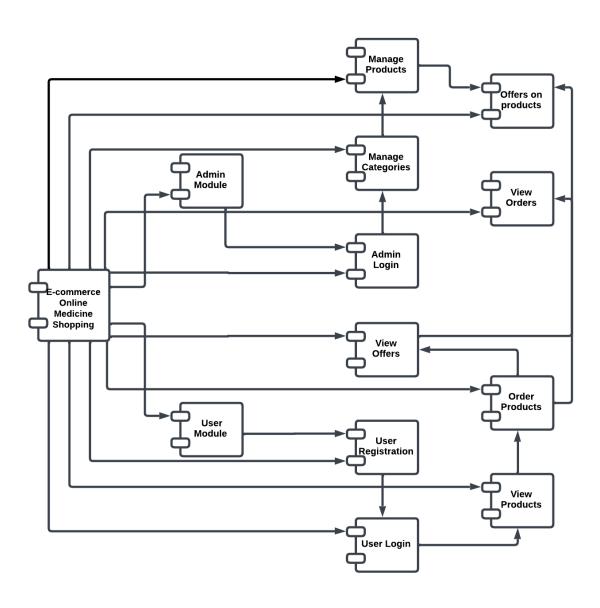
8. View Products:

Here user views the products with their image, name, description, or according to their requirements and then can order products.

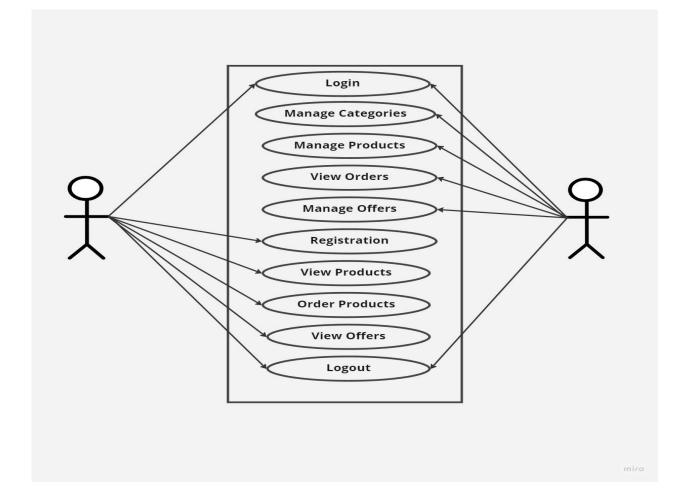
9. Order Products:

Here user orders the product they need and gets offer on the products they order for the next time.

> Component diagram



> Use Case



2) **Description of Technology Used:**

Details of Hardware devices

Processor: -

The processor is a chip or a logical circuit that responds and processes the basic instructions to drive a particular computer. We have used average I3 processor. The Core i3 processor is available in multiple speeds, ranging from 1.30 GHz up to 3.50 GHz, and features either 3 MB or 4 MB of cache. Core i3 processors are found as dual-core, having two cores.

• Types of processors: -

✓ Microprocessor: -

The general-purpose processors are represented by the microprocessor in embedded systems. There are different varieties of microprocessors available in the market from different companies.

✓ Microcontroller

The microcontroller is basically a computer that comes in various packages and sizes. The reading input and responding to output is the basic function of the microcontroller.

> RAM: -

Random access memory. It is one of the part of the Main memory, also known as Read Write Memory. Random Access memory is present on the motherboard and the computer's data is temporarily stored in RAM. We have used average RAM of 2GB and 4GB.

Types of RAMS

✓ **SRAM** (Static Random Access Memory)

SRAM is used for cache memory.it can hold the data as long as the power availability is there.

✓ **DRAM** (Dynamic Random Access Memory)

DRAM is used for the main memory, it has a different construction than SRAM, and it used one transistor and one capacitor which is needed to get recharged in milliseconds due to the presence of the capacitor.

Advantages of RAM:-

- High speed
- Temporary memory
- Faster than secondary memory
- Fastest type of memory in computer

Details of software products

Software products we have used in our project

• PHP designer:-

PHP Designer 8 is a fast and powerful PHP IDE and PHP editor with fill-blown HTML5, CSS3 and JavaScript built-in editors. Highly customizable IDE with intelligent syntax highlighting, debug support, syntax analysing support for object-oriented coding.

VS Code:-

Visual Studio Code, also commonly referred to as VS Code, is a source-code editor made by Microsoft with the electron Framework, for windows, Linux and macOS. Features include support for debugging, syntax highlighting.

XAMPP Server:-

XAMPP is a cross-platform and open source tool, which makes it an ideal choice of web developers. It is the acronym of X-cross platform, Apache, MySQL, PHP, and Perl.

• Operating System:-

An operating system is system software that manages computer hardware and software resources, and provides common service for computing programs.

- ✓ Types of OS
- ► Batch Operating system
- > Time-sharing operating system
- Distributed operating system
- Network operating system
- Real-time operating system

• Browser :-

A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web.

- ✓ Types of browser
- > Internet explorer
- Mozilla Firefox
- Google chrome
- Safari
- Microsoft edge

Programming Languages

• HTML:

HTML stands for Hyper Text Markup Language. HTML is the standard markup language for creating Web pages. HTML describes the structure of a Web page. Is a client-side scripting language. Hypertext defines the link between the web pages and markup language defines the text document within the tag that define the structure of web pages.

• CSS:

CSS stands for Cascading Style Sheets.CSS describes how HTML elements are to be displayed on screen, paper, or in other media.CSS saves a lot of work. It can control the layout of multiple web pages all at once. External stylesheets are stored in CSS files.

• JavaScript:

JavaScript (**JS**) is the most popular lightweight, interpreted compiled programming language. It can be used for both **Client-side** as well as **Server-side** developments. JavaScript also known as a scripting language for web pages.

• Bootstrap:

Bootstrap is a free and open-source tool collection for creating responsive websites and web applications. It is the most popular HTML, CSS and JS framework for developing responsive, mobile-first websites. It is Faster and Easier way for Web-Development. It creates Platform-independent web-pages. It creates Responsive Web-pages.

• PHP:

PHP is an acronym for "PHP: Hypertext Pre-processor". PHP is a widely-used, open source scripting language. PHP scripts are executed on the server. PHP is free to download and use.

3) **Fabrication**:

Construction or Fabrication details

In this we are going to explain about execution of our project modules.

1. Admin login: -

In admin login, first we have collected the requirements then analyse the requirements gathered. Then we design the admin login form. After designing the page it is validated, where the form must be filled with correct details in each field. Then we performed the database connection. And finally, after completing all the steps testing is done.

2. Manage Categories:

For managing categories, first we have collected the requirements then analyse the requirements gathered. Then we design the add categories page. After designing the page it is validated, where the categories are specified to match the correct parameters. Then we performed the database connection. And finally, after completing all the steps testing is done.

3. Manage Products:

For managing products, first we have collected the requirements then analyse the requirements gathered. Then we design the page to add products. After designing the page it is validated, where the products must be added in specific category it belongs to. Then we performed the database connection. And finally, after completing all the steps testing is done.

4. View Orders:

To view orders, first we have collected the requirements then analyse the requirements gathered. Then we design view order page. After designing the page it is validated, where order list is displayed with the list of products and user details. Then we performed the database connection. And finally, after completing all the steps testing is done.

5. Offers:

For offers , first we have collected the requirements then analyse the requirements gathered. Then we design the offer page where coupon code is generated. After designing the page it is validated, where after every order the coupon code is generated. Then we performed the database connection. And finally, after completing all the steps testing is done.

6. User Registration:

For user registration, first we have collected the requirements then analyse the requirements gathered. Then we design user registration page according to requirements. After designing the page it is validated, where user must register with correct details and match the specifications. Then we performed the database connection. And finally, after completing all the steps testing is done.

7. User Login:

For user login, first we have collected the requirements then analyse the requirements gathered. Then we design user login page according to requirements. After designing the page it is validated, where user must login with correct details and match the specifications. Then we performed the database connection. And finally, after completing all the steps testing is done.

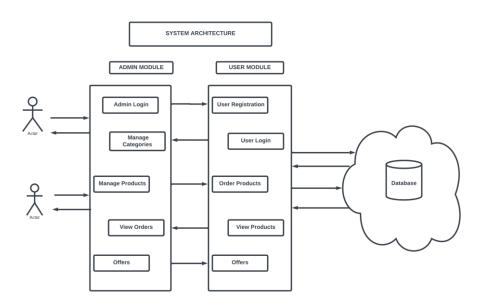
8. **View Products**:

To view products, first we have collected the requirements then analyse the requirements gathered. Then we design product page according to requirements. After designing the page it is validated, where user can view the products given by admin with correct product details. Then we performed the database connection. And finally, after completing all the steps testing is done.

9. **Order Products**:

To order product, first we have collected the requirements then analyse the requirements gathered. Then we design order page according to requirements. After designing the page it is validated, where user orders product and gets a coupon code. Then we performed the database connection. And finally, after completing all the steps testing is done.

❖ System Architecture



4) Validation and validation: -

Testing Types: -

1. Manual Testing: -

Manual Testing is a kind of software testing in which a software tester develops and executes the test cases without using any automated testing tools. The main objective of manual testing is to detect the issues, bugs, and defects of a software application. Any new software application should be manually tested before performing the automation testing. The software testing fundamental "100% Automation is not possible" makes Manual Testing essential.

2.Unit Testing: -

Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually scrutinized for proper operation. Software developers and sometimes QA staff complete unit tests during the development process. The main objective of unit testing is to isolate written code to test and determine if it works as intended. Unit testing is an important step in the development process. If done correctly, unit tests can detect early flaws in code which may be more difficult to find in later testing stages.

3.Integration Testing: -

Integration testing (sometimes called integration and testing, abbreviated I&T) is the phase in software testing in which individual software modules are combined and tested as a group. Integration testing is conducted to evaluate the compliance of a system or component with specified functional requirements. It occurs after unit testing and before system testing. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, applies tests defined in an integration test plan to those aggregates, and delivers as its output the integrated system ready for system testing.

4. White Box Testing: -

White box testing is a form of application testing that provides the tester with complete knowledge of the application being tested, including access to source code and design documents. This in-depth visibility makes it possible for white box testing to identify issues that are invisible to grey and black box testing.

5.Black Box Testing: -

Black box testing involves testing a system with no prior knowledge of its internal workings. A tester provides an input, and observes the output generated by the system under test. This makes it possible to identify how the system responds to expected and unexpected user actions, its response time, usability issues and reliability issues.

Validation:-

1.Admin Login

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC01	Check Admin Login with Valid Data	Enter Admin name And Password	Admin name = admin Password = admin	Admin Login Successfully	As Expected	Pass

2. Manage Categories

	ige dategories					
Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC02	Check Admin has added category with valid data	Enter Category name	Category Name= Health and nutrition	Category add successfully	As Expected	Pass

3. Manage Product's

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC03	Check Admin adds products with their correct details	Product Name, Product code, Description etc	Product Name = Horlicks Classic Malt 200g	Product add successfully	As Expected	Pass

4. View Order

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC04	If admin doesn't want to take order admin can remove it	Orders	Remove	Order removed successfully	As Expected	Pass

5. User Registration

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Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC05	Check User Register with Valid Data	Enter -User Name Name Mobile number, Passwor d Email address.	User Name= Darshan, Name= Darshan , Mobile number= 880847887, Password=12 3456, Email address= darshanghatg e@gmail.co m	You Successfully Registered	As Expected	Pass

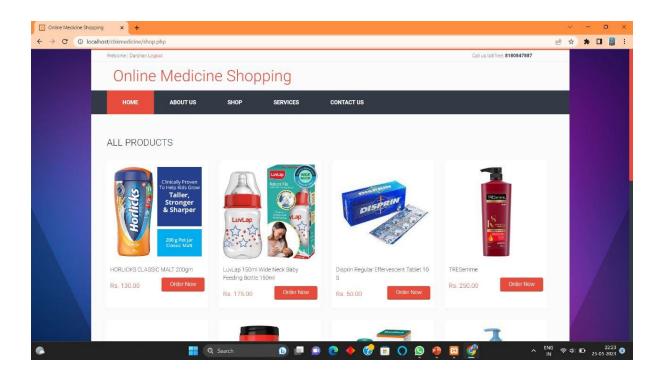
6. User Login

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC06	Check User Login with Valid Data	Enter Username And Password	Username = admin Password = admin	User Login Successfully	As Expected	Pass

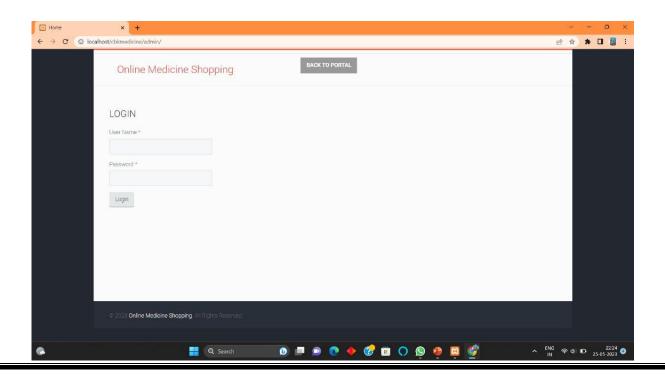
7. Order Product's

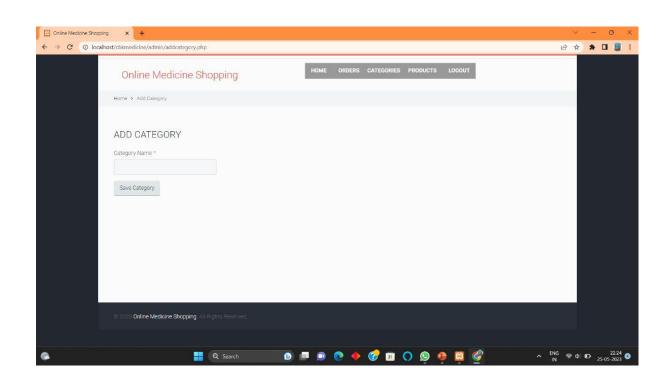
Test Cas e Id	Test Descriptio n	Test Steps	Test Data	Expecte d Result	Actual Result	Statu s
TC07	Check user gives appropriat e details for	Enter Addres s ,City , State, Zip code etc	Address=Kolhapu r ,City=Kolhapur , State=Maharashtr a, Zip code=416006 etc	Thanks a lot for your order	As Expecte d	Pass

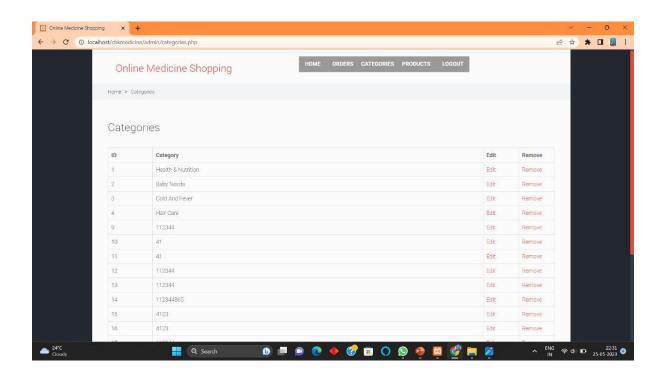
4) Results and inference:

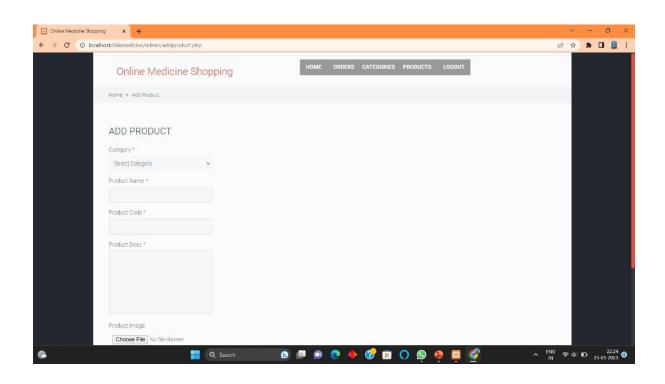


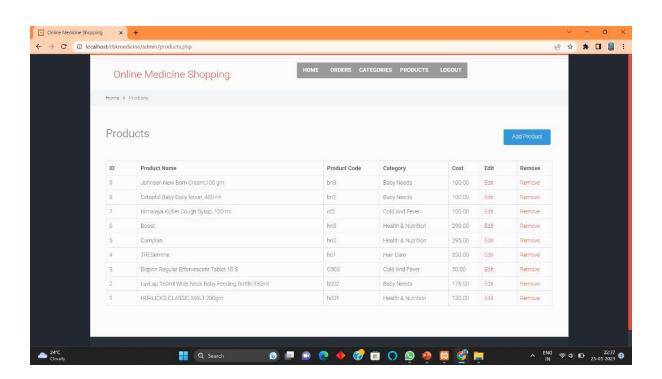
• Admin Module

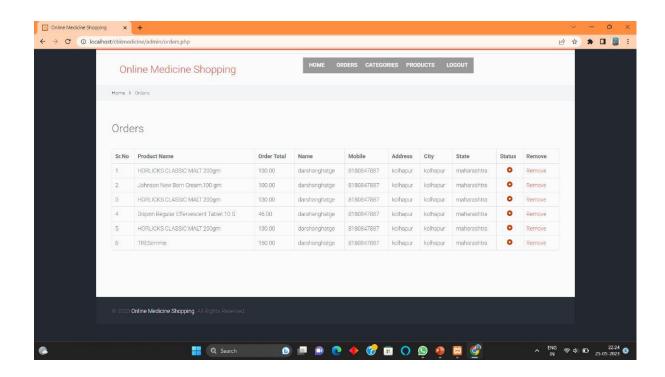




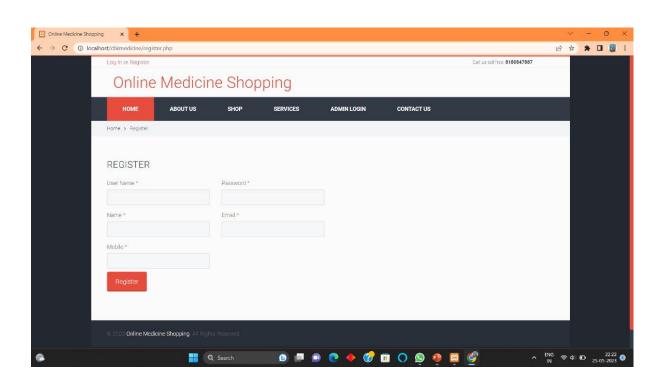


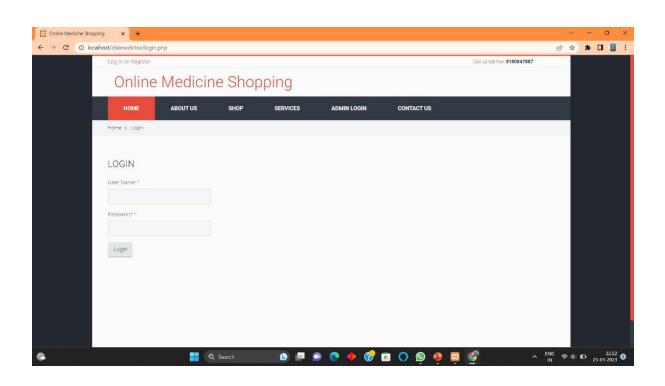


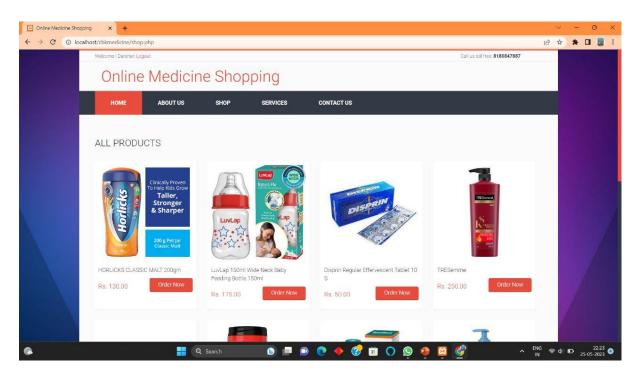


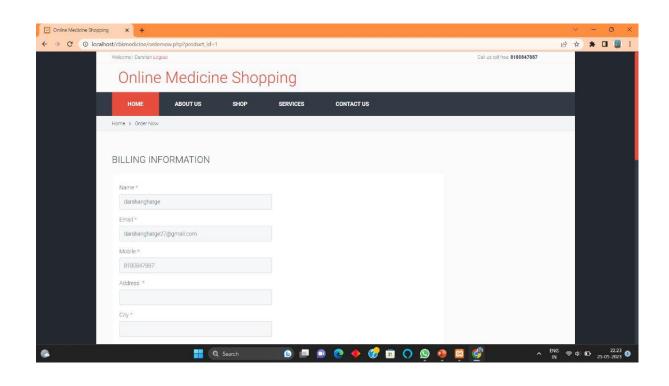


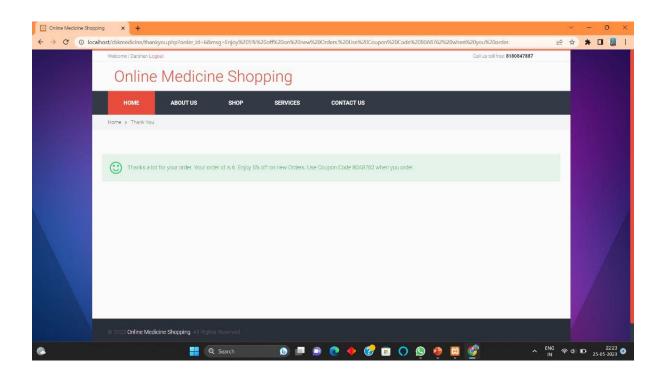
• User Module











Inference

➤ Admin Login

In our project, the admin login is crucial because they oversee the entire project and control all user-related matters. Additionally, administration is crucial to our project.

Manage Categories

To make it easier for users to purchase things, admin should include the appropriate categories. Products will be added by the admin to the appropriate categories.

➤ Manage Products

The administrator is in charge of managing the products in their relevant categories and can view the entire product inventory.

View Orders

View orders in depends on users adding orders as needed and requesting products. and the admin oversees its management.

User Registration

Before logging in, users must first register by providing their contact information, including their username, password, phone number, address, and email.

User Login

As he receives a username and password above for simple access to place orders for products, the user can log in using these data.

Order Products

The user can place orders for all the products after viewing them using the accurate information.

View Products

As soon as a user logs in using the proper information, they can browse the products and their categories before purchasing.

Offers

The user receives a coupon code as soon as they place an order for products.