DRIFT

A COMPLETE TYRE SERVICE PORTAL

Dnyanprassarak Mandal's

College and Research Centre

(2019-2020)

"Drift Tyre Solution"- A Complete Tyre Service Portal

By

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UNDER THE GUIDANCE OF

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Department of Computer Applications

A project report submitted to Goa University in partial fulfilment of the requirement for the degree of BCA.

DECLARATION BY CANDIDATES

I/We declare that this project has been prepared by me/us and to the best of my/our knowledge; it has not previously formed the basis for the award of any diploma or degree by this or any other university.

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41	Kishan Jadhav	

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College and Research Centre

Assagao, Bardez-Goa

Department of Computer Applications

AFFILIATED TO GOA UNIVERSITY

CERTIFICATE

THIS IS TO CERTIFY THAT A PROJECT ON

"Drift Tyre Solution"- A Complete Tyre Service Portal

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Mr. Prasann Mayekar

(Project Co-ordinator)

Place:

Date:

Acknowledgement

We are elated that our project has been successfully completed and were able to achieve our objective as per the plan.

We would like to express our special thanks of gratitude to our Project Guide Mr. Krishnarao Rane for guiding and believing us throughout and investing his full effort in different modes in achieving the goal of the project, right from planning phase to development phase. We would also like to thank him for conducting an android lecture Which really boosted and elevated our skills which in turn helped us to shape our project more accurately.

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introduction

Introduction

In today's world everything is getting online. Most of the services that we need, we can buy online. It is easier for people to sit at home and choose what to buy and make a purchase. Same way, we have come with a system to buy tyres for the vehicles and their maintenance service online.

Drift tyre solution is a system of tyre sales and service which makes it easy for customers to search for tyres and order online by sitting at home. He can also take appointments for modification of tyres for any type of modification he needs. The customer can visit the website on any device. There are different types of memberships available customers can buy. Customers can Register their vehicles on the system. Customers can search for products according to their vehicle. Customers can login to the system, search for required tyres or any service and add all their wished products to cart. From the cart they can place order.

After the purchase also we provide maintenance of the accessories purchased. For the maintenance, they can take appointments.

This system makes easy for customers to maintain their vehicle tyres digitally.

Existing system & Its limitations

EXISTING SYSTEM

If someone had to buy a product say for instance a tyre or want some modifications for the vehicle it was time consuming and had many disadvantages associated with it. Customers had less options to buy and less varieties to choose from the limited options. For example, the customer had to travel to the shop that is selling that tyre. If the shop selling the vehicle parts is far and remote this would also add to the travelling cost.

On some occasions if the customer travels to the shop and that particular shop is unavailable it would lead to waste of time. Whereas sometimes when the shop is available, the consumers might be unavailable due to their busy schedule and it may not be possible for him\her to travel. On other occasion even if the shop is available the parts required by the customer might be unavailable whereas sometimes the persons involved in servicing would be unavailable which would mean that servicing is not possible.

Once the tyre is bought the consumer has to transport it home or to the place where the vehicle is placed which again is hectic and troublesome. Sometimes customer has to get the vehicle to the shop that offers the modifications, adding to the trouble. The shop will also not guarantee the services on the same day of visiting it, and may get delayed further and further asking the customer to visit the shop every second day which would again lead to a very unpleasant experience. The services would also be unavailable to due to various reasons like the absence of staff, unavailability of required parts, unavailability of the shop that would again lead to delay.

Proposed System

PROPOSED SYSTEM

The proposed system has reduced the disadvantages of the existing system and is very easy. For example if a customer wants to buy a tyre or modify his vehicle, it is not necessary for the a buyer to travel to the shop, that might be situated far away but the buyer while at home or work can visit the website and just select the various options, make the choice according to his need from a range of products and has the option for buying the product he is interested in.

This not only eliminates his travel cost to the far-off place where the shops are located but also saves a lot of time that the person can invest in other important work which would otherwise be consumed. It completely eliminates the situation of the shop or services not being available for reasons like absence of staff, occasion of a public holiday, etc. Here there's a filter option where the customer has range of different products with a range of prices that the consumer can choose according to his budget. He can view several products at once which allows for easy comparison among them. Here, One can go through the reviews given by the people who have used that product, and can get the idea of it. The various options here also consist of description of the product which gives the customer a better picture of it.

The customer can also cancel the order if he\she finds a better option, is not satisfied with the order or changes mind. There is payment mode like the cash on delivery option which serves as an advantage for the people who don't have debit or credit cards. There is also a option made available for exchange of the product if the buyer is not satisfied with the purchase. Here the customer also enjoys the home delivery service and in case of modification of the vehicle it has to be pre-booked on the website.

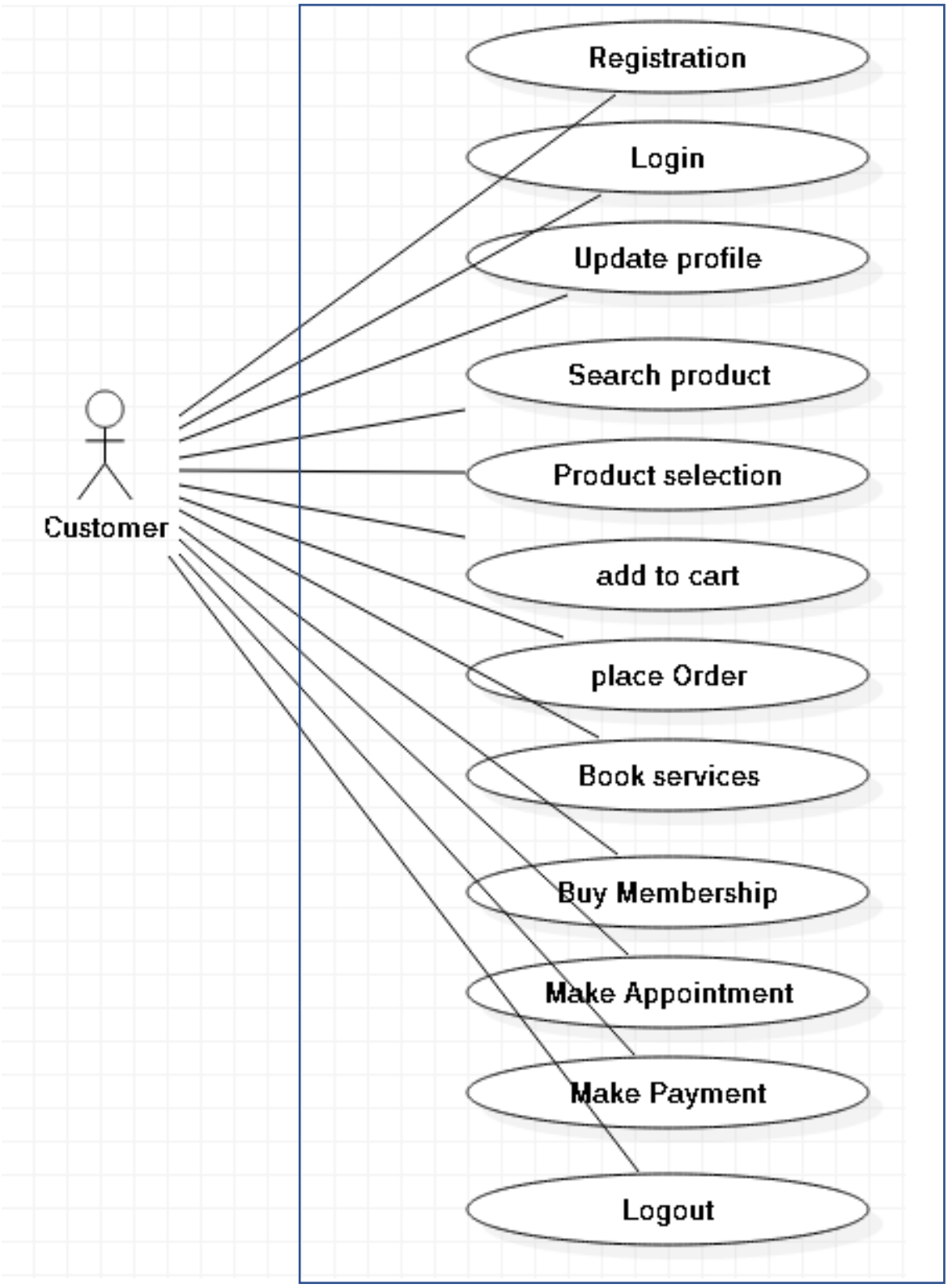
Features: -

- Variety of brands
- Variety of tyres for different types of vehicles
- Modification
- Membership
- Responsive GUI
- secured

Advantages: -

- Easy access from any device
- Search particular tyre of particular brand from variety of products
- Modification Appointments
- Home delivery of products
- Installation and maintenance of tyres in nearby service centres

Use case diagram


Registration
Login
Update profile
Search product
Product selection
add to cart
place Order
Book services
Buy Membership
Make Appointment
Make Payment
Logout
Customer

Detailed use cases

DETAILED USE CASE (ADMIN)

1. LOGIN

Use case: Login

Scope: Drift Tyre Solution

Level: admin level

Primary action: Admin

Pre-condition: Admin should have been registered earlier

Post condition: Admin logs in successfully

Main screen scenario:

1. Admin clicks on login button
2. System displays login screen
3. Admin enters valid user name and password
4. Clicks on submit button
5. System verify user name and password
6. Admin logs in successfully

Extension:

1. Empty user name and password
2. Invalid login

2. UPDATE PRODUCT DETAILS

Use case: Update product details

Scope: Drift Tyre Solution

Level: user level

Primary action: Admin

Pre-condition: admin must be login

Post condition: product details successfully updated

Main screen scenario:

1. Admin clicks on edit product details option
2. system will display all product details along with edit details option
3. Admin will update product details
4. Admin will save the updates
5. system displays updates details

Extension:

1. invalid update

3. LOGOUT

Use case: Logout

Scope: Drift Tyre Solution

Level: admin level

Primary action: Admin

Pre-condition: admin should be logged in

Post condition: admin logs out successfully

Main screen scenario:

1. admin check for profile menu
2. admin clicks on logout button
3. system displays pop up with cancel & logout option
4. admin clicks logout out option
5. admin logs out successfully

Extension:

1. admin must be logged in

4. CHECK APPOINTMENTS, GENERATES REPORTS

Use case: check appointments and generates reports

Scope: Drift Tyre Solution

Level: user level

Primary action: Admin

Pre-condition: admin must be logged in

Post condition: successfully checked appointments and generate reports

Main screen scenario:

1. admin clicks on appointments requests / Product sales
2. system checks status and Generates reports
3. Admin will accept pending requests product, provide specific time and date

Extension:

1. admin must be logged in

5. CHECKS ORDERS

Use case: check orders

Scope: Drift Tyre Solution

Level: admin level

Primary action: Admin /Admin

Pre-condition: Admin must be login

Post condition: Admin check all orders

Main screen scenario:

1. Admin clicks on check orders
2. System displays ordered list
3. Admin check orders
4. System displays checked status

Extension:

1. Admin must be login

DETAILED USE CASE (CUSTOMER)

1) **USE CASE FOR REGISTRATION**

Use case: - Registration
Scope case: - Drift tyre solution
Level: - User goal
Actor: - Customer
Pre-condition: - Customer should provide valid details
Post-condition: - Customer register successfully

Main Screen Scenario

1. Customer clicks on registration.
2. System displays registration page.
3. Customer enters details.
4. Customer clicks on submit button.
5. System checks the details.
6. Customer register successfully.

Extension:

1. valid user details

2) **Use case for Login**

Use case: - Login
Scope case: - Drift tyre solution
Level: - User goal
Actor: - Customer
Pre-condition: - Customer must have been registered earlier
Post-condition: - Customer login successfully

Main Screen Scenario

1. Customer clicks on login.
2. System displays login page.
3. Customer enters username and password.
4. Customer clicks on submit button.
5. System verifies username and password.
6. Customer login successfully.

Extension:

1. Invalid user details

3) **Use case for Update-edit profile**

Use case: - Update-edit profile
Scope case: - Drift tyre solution
Level: - User goal
Actor: - Customer
Pre-condition: - Customer must be login
Post-condition: - Customer Update-edit profile successfully

Main Screen Scenario

1. Customer clicks on profile.
2. System display profile page.
3. Customer clicks on edit profile.
4. Customer clicks on upload button.
5. System show profile uploaded successfully.

Extension:

1. File format not supported.

4) **Use case for Search product**

Use case: - Search product
Scope case: - Drift tyre solution
Level: - User goal
Actor: - Customer
Pre-condition: - Customer must search valid product
Post-condition: - product search successfully

Main Screen Scenario

1. Customer clicks on search field.
2. Customer enter a keyword into the search field.
3. Customer clicks on search button.
4. System show information related to search product.

Extension:

1. Empty Fields.

5) **Use case for Order**

Use case: - Order
Scope case: - Drift tyre solution
Level: - User goal
Actor: - Customer
Pre-condition: - Customer must be registered/ logged in
Post-condition: - Order must be processed and confirmation provided to customer

Main Screen Scenario

1. Customer search for item.
2. System show list of items.
3. Customer select the item.
4. Customer add item to cart.
5. Customer procced to checkout.
6. System ask for payment and shipping details.
7. Customer enter the details.
8. System process the order.

Extension:

1. valid user details

USE CASE FOR APPOINTMENT

Use case: Book service

Scope: Drift tyre solution

Level: User goal

Primary factor: Customer

Pre-condition: Customer should login

Post condition: Customer booking successful

Main screen scenario:

1) Customer clicks on book service
2) System displays booking page
3) Customer enters id details
4) Customer enter submit button
5) System verifying id details
6) Customer booking successful

Extension:

1) Invalid id proof
2) Empty field

USE CASE FOR MEMBERSHIP

Use case: Membership

Scope: Drift tyre solution

Level: User goal

Primary factor: Customer

Pre-condition: Customer must login

Post condition: Customer membership successful

Main screen scenario:

1) Customer clicks on membership
2) System displays membership page
3) Customer selecting a particular membership
4) Customer enter submit button
5) Customer becomes Member

Extension:

1) Unselected field

USE CASE FOR PAYMENT

Use case: Payment

Scope: Drift tyre solution

Level: User goal

Primary factor: Customer

Pre-condition: Customer should select payment method and provide their delivery address

Post condition: Customer payment successful

Main screen scenario:

1) Customer clicks on payment

2) System displays payment page

3) Customer select the payment method

4) Customer enters address detail

5) Customer enter submit button

5) Customer payment successful

Extension:

1) Unselected field

USE CASE FOR LOGOUT

Use case: logout

Scope: Drift tyre solution

Level: User goal

Primary factor: Customer

Pre-condition: Customer must log in

Post condition: Customer log out successful

Main screen scenario:

1) Customer clicks on menu
2) Customer clicks on log out
3) System display log out pop up screen
4) Customer enter on log out button
5) Customer log out successful

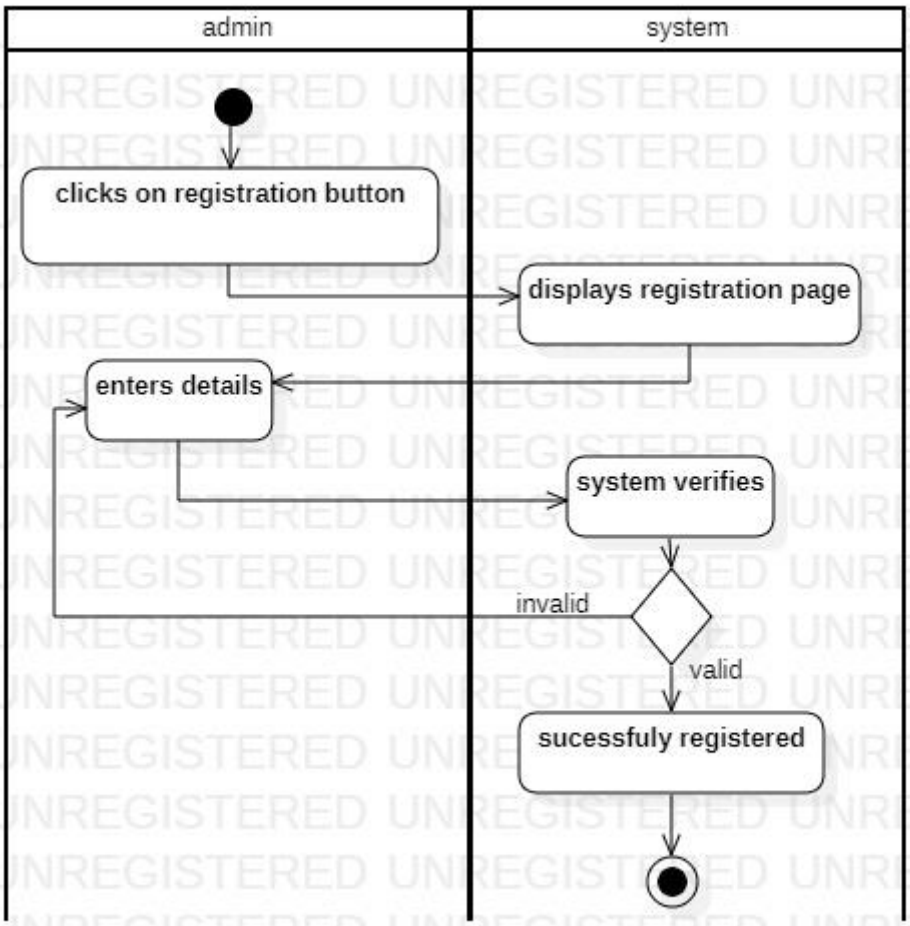
Extension:

1) Confirm log out

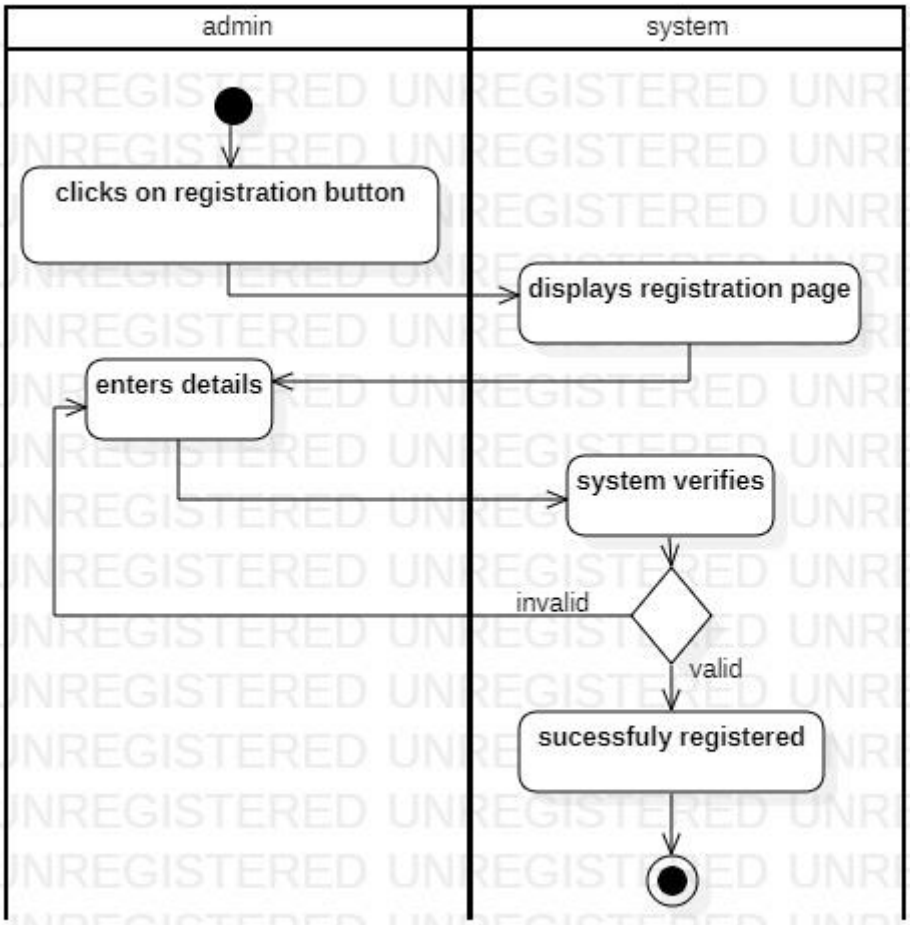
ACTIVITY DIAGRAM

ACTIVITY DAIGRAM (ADMIN)

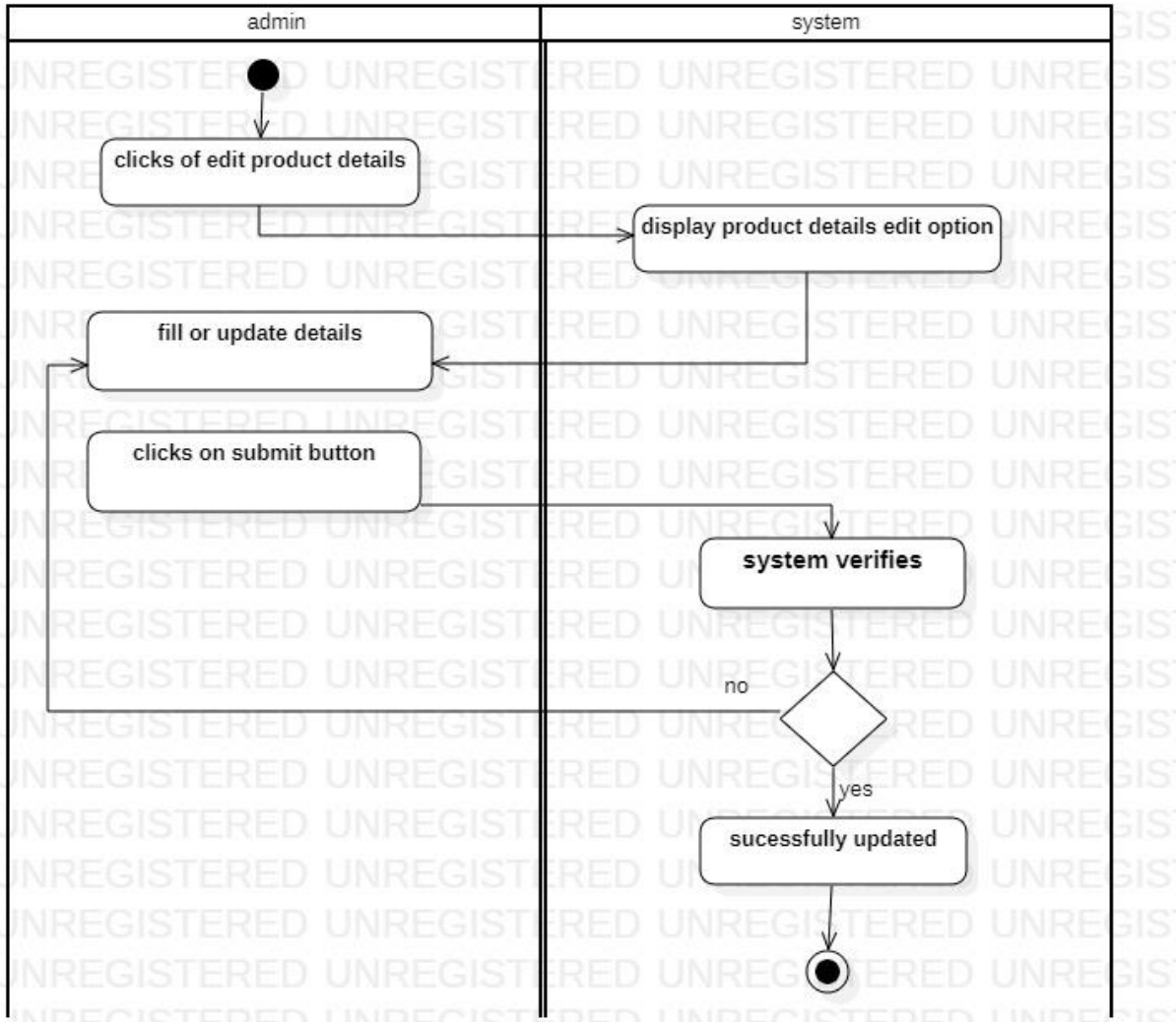
REGISTRATION



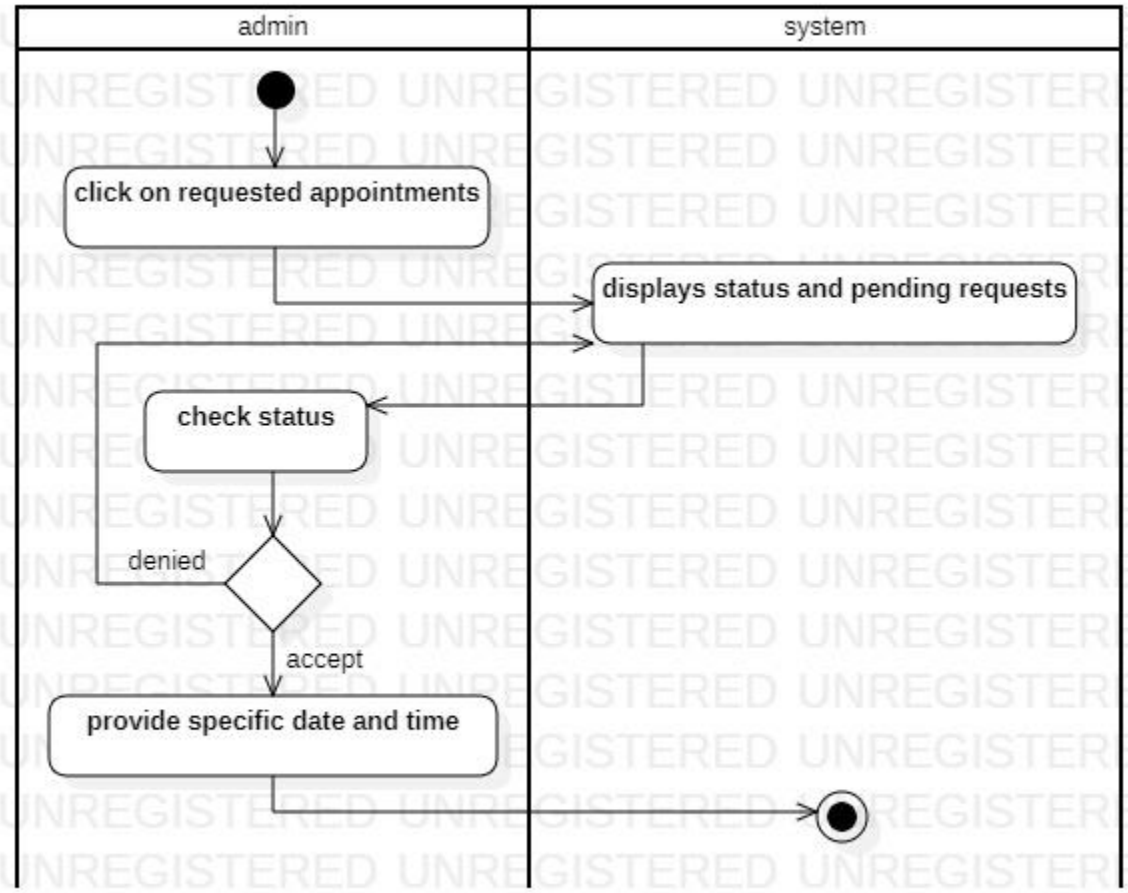
LOGIN


admin
system
clicks on registration button
displays registration page
enters details
system verifies
invalid
valid
sucessfuly registered

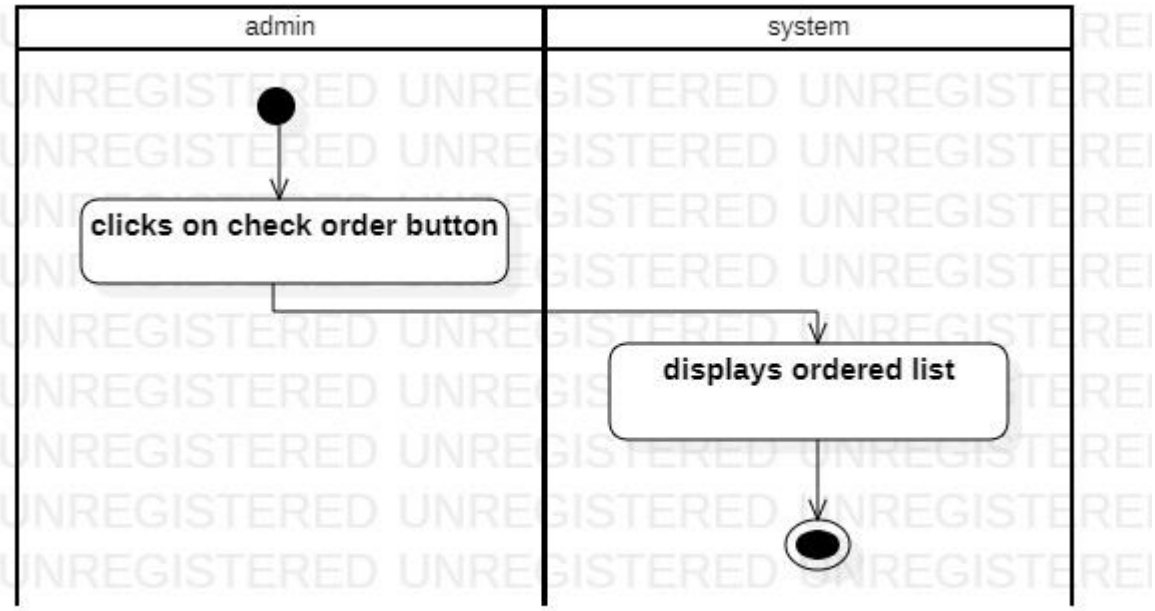
UPDATE PRODUCT DETAILS



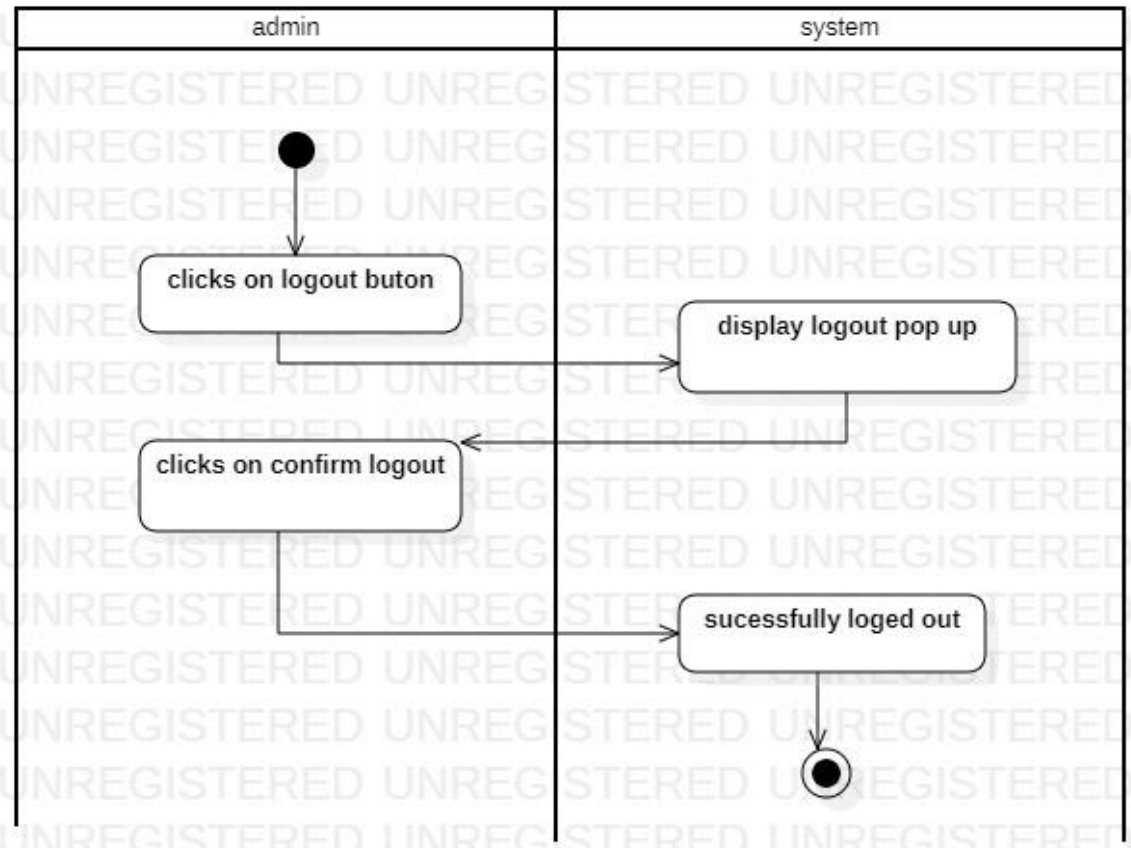
CHECK APPOINTMENT



CHECK ORDER

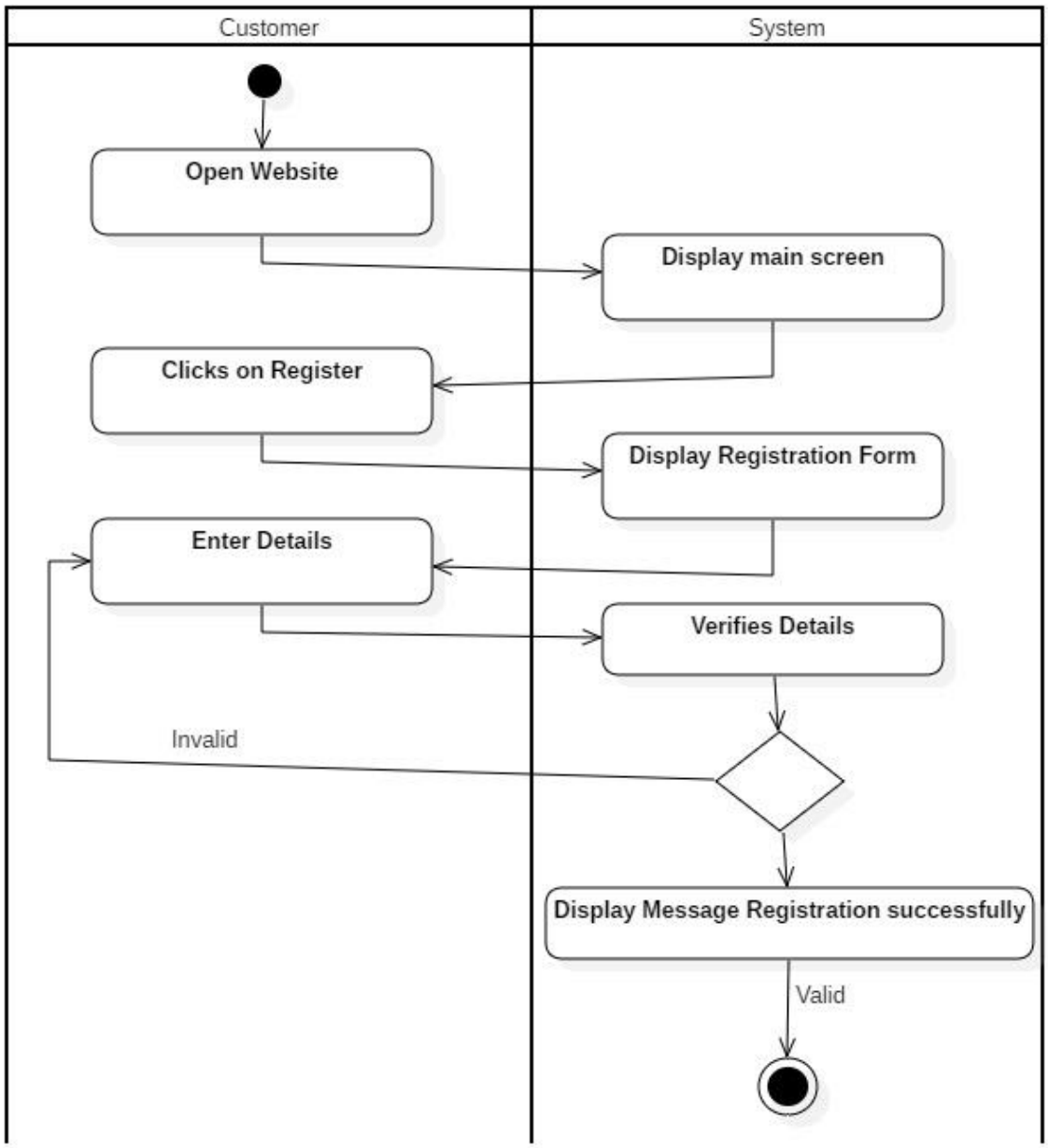


LOGOUT

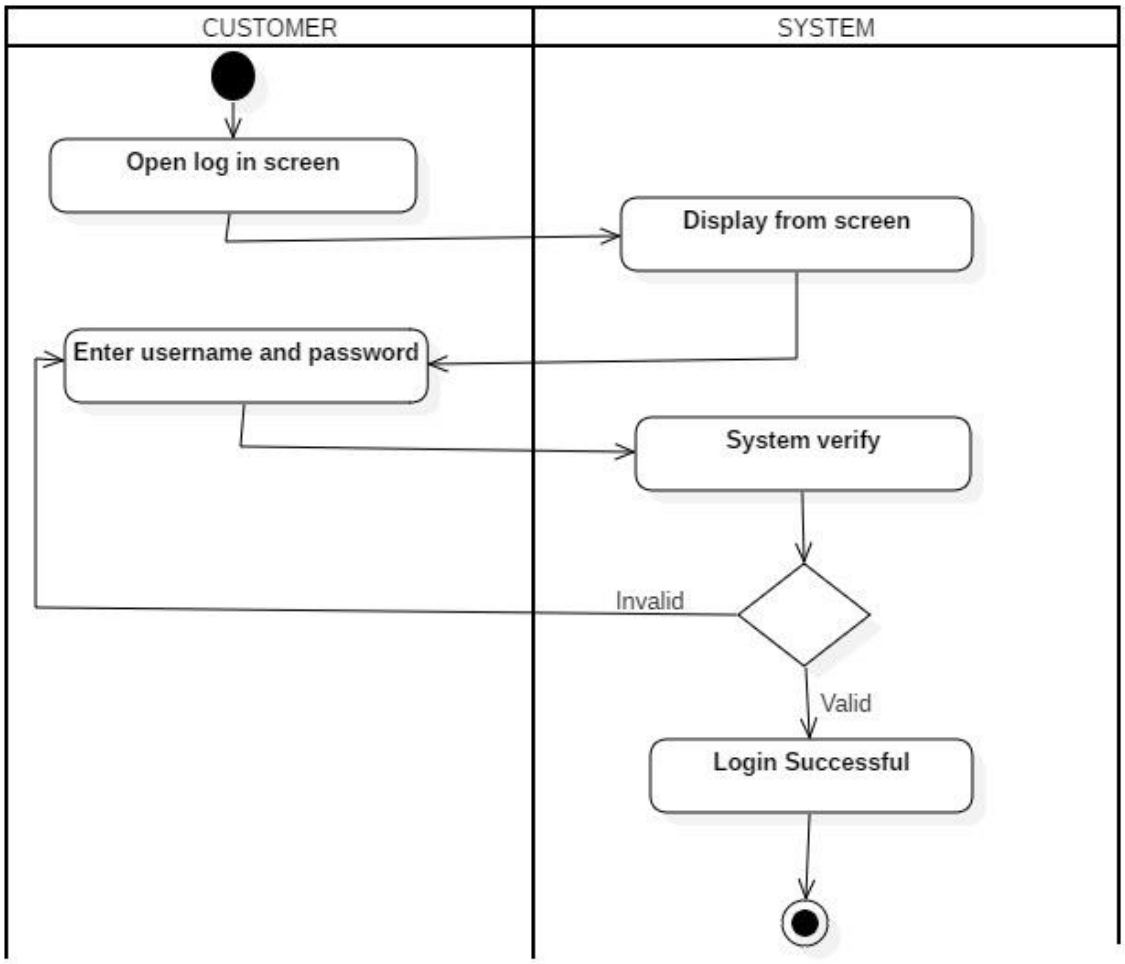

admin
system
clicks on logout buton
display logout pop up
clicks on confirm logout
sucessfully loged out

ACTIVITY DIAGRAM (CUSTOMER)

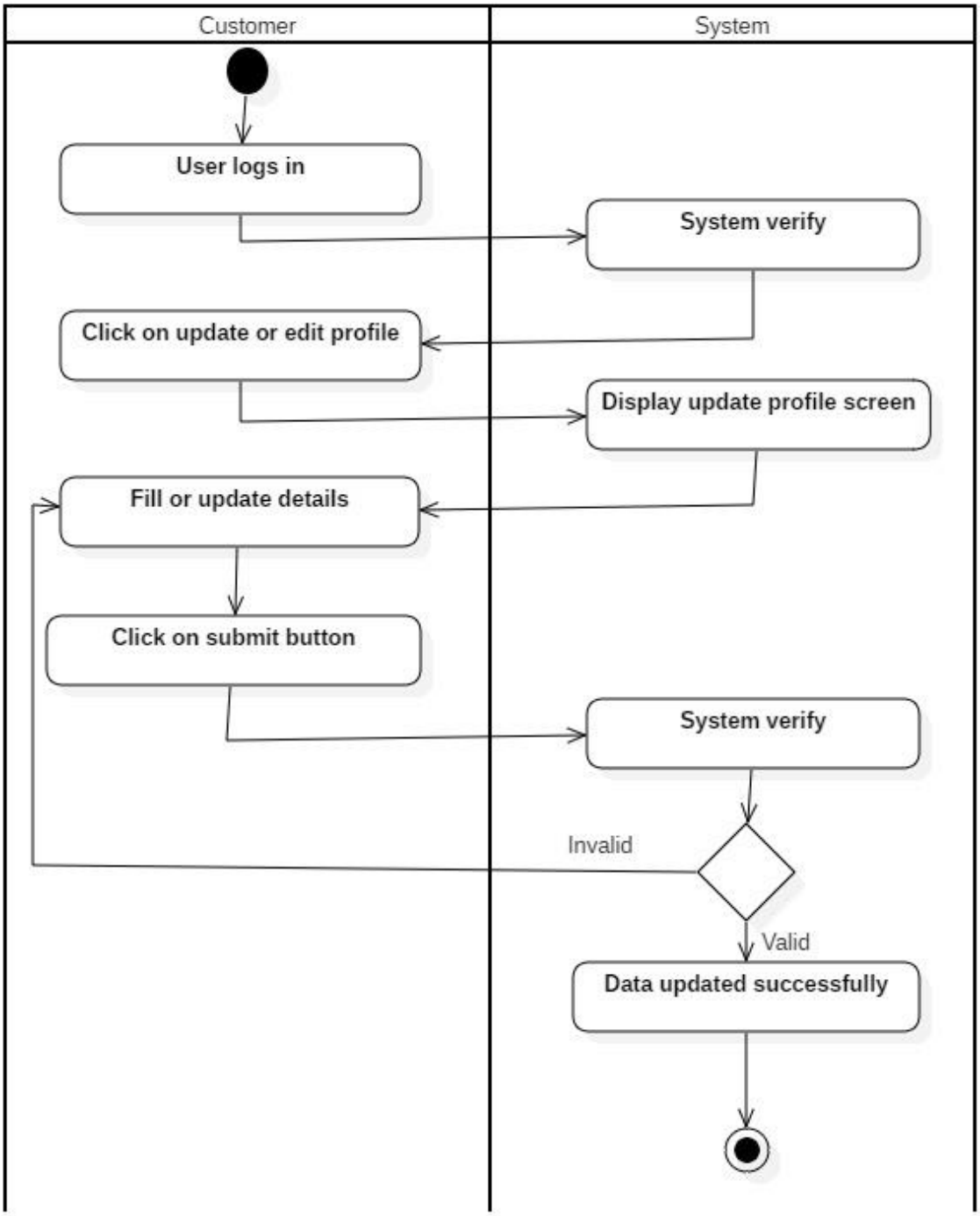
REGISTRATION



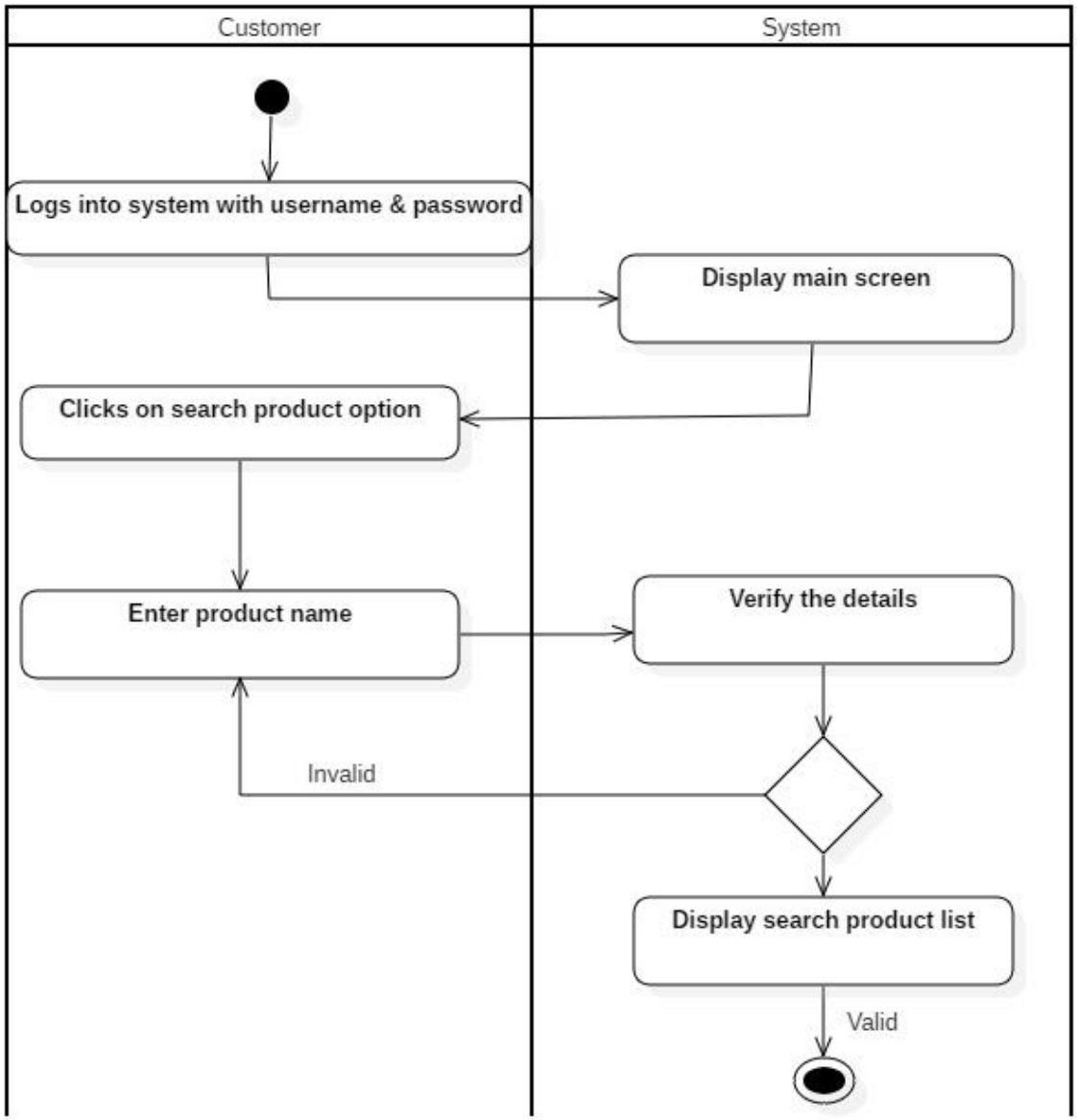
LOGIN


CUSTOMER
SYSTEM
Open log in screen
Display from screen
Enter username and password
System verify
Invalid
Valid
Login Successful

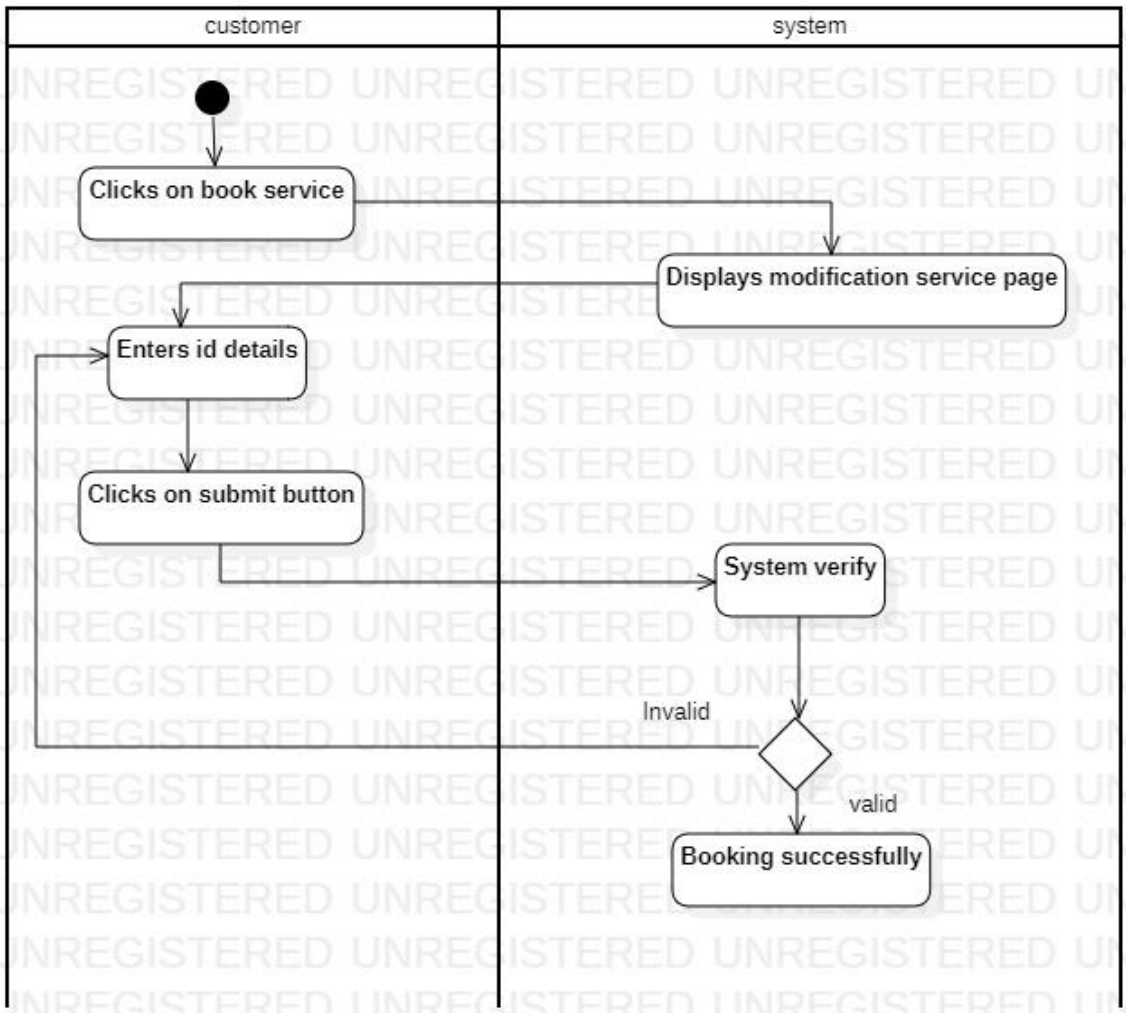
UPDATE-EDIT PROFILE



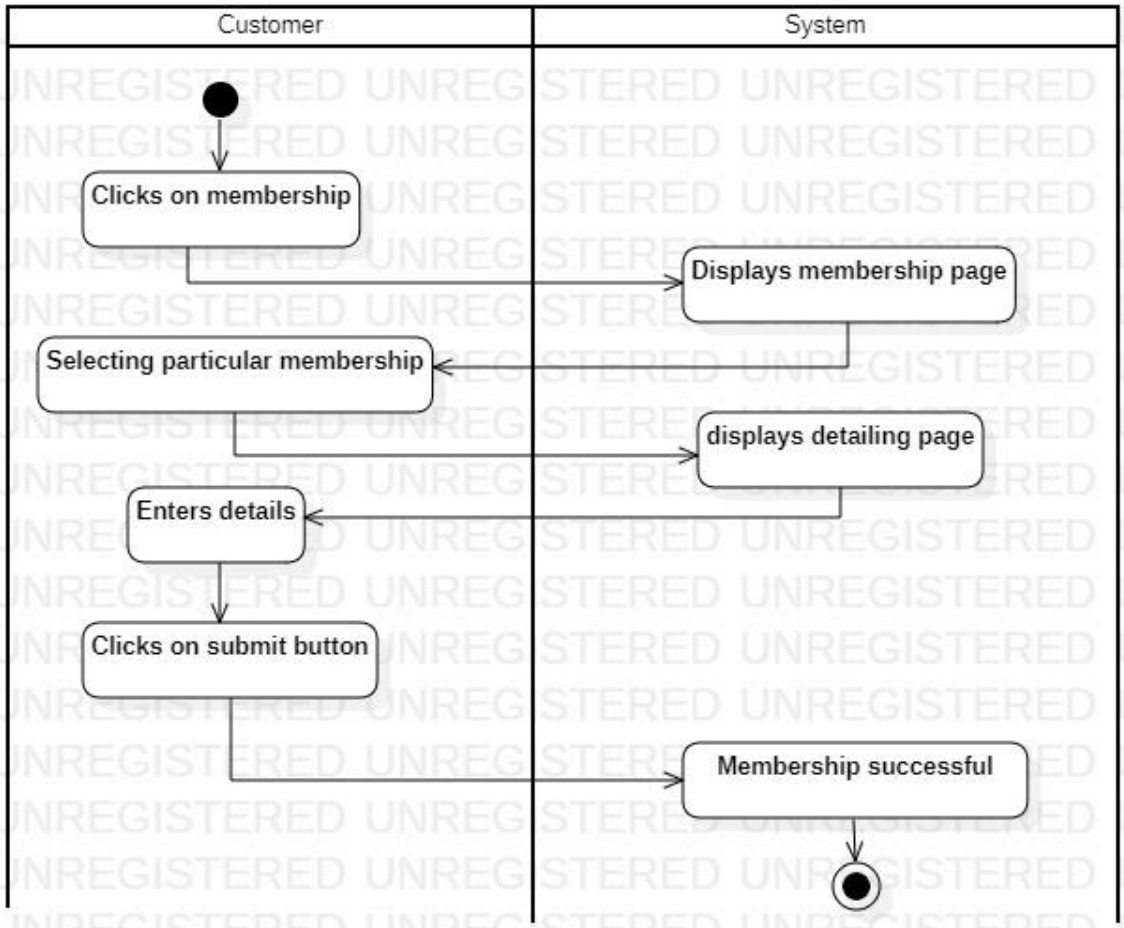
SEARCH PRODUCT



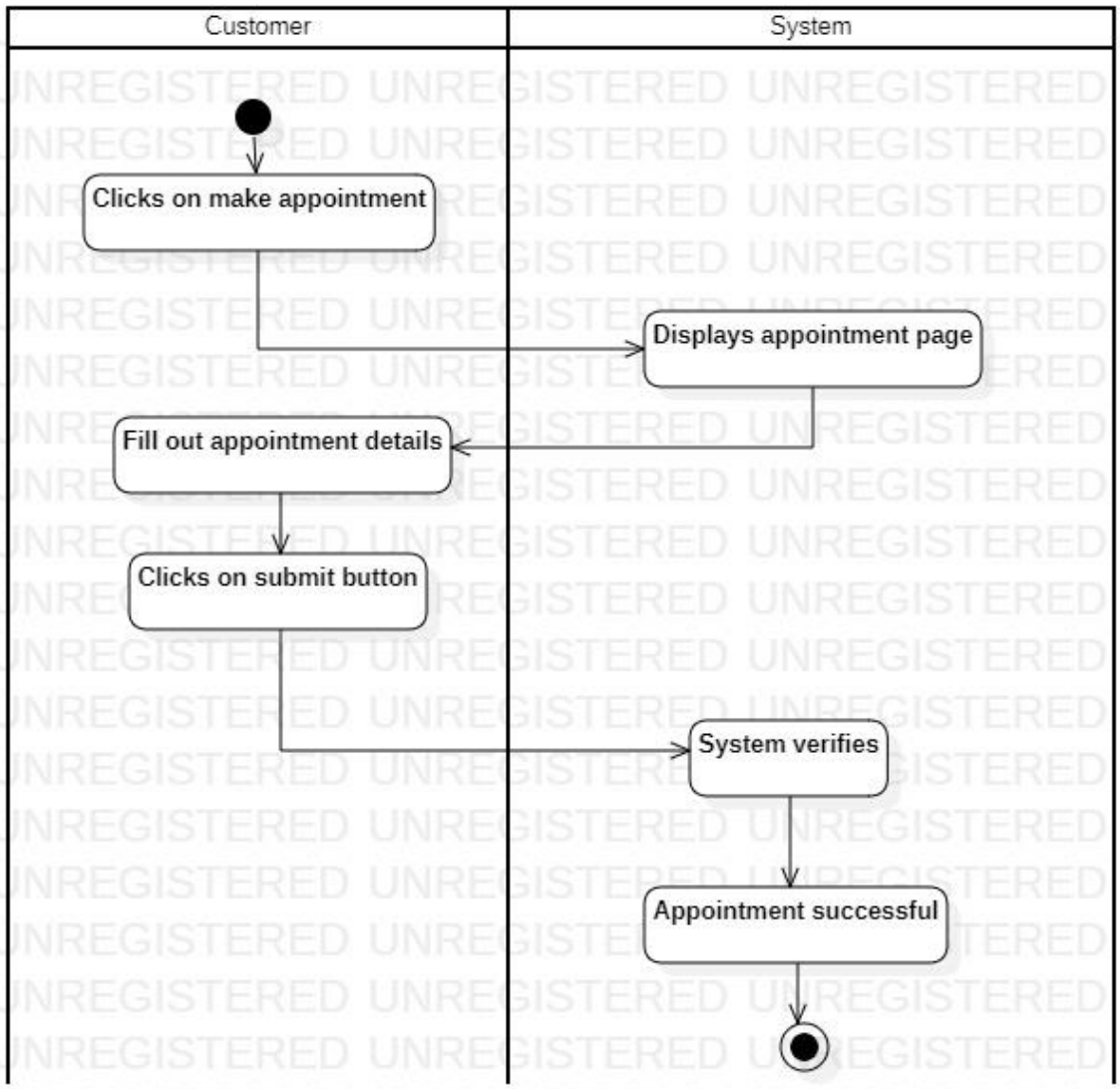
BOOK SERVICES/ APPOINTMENT



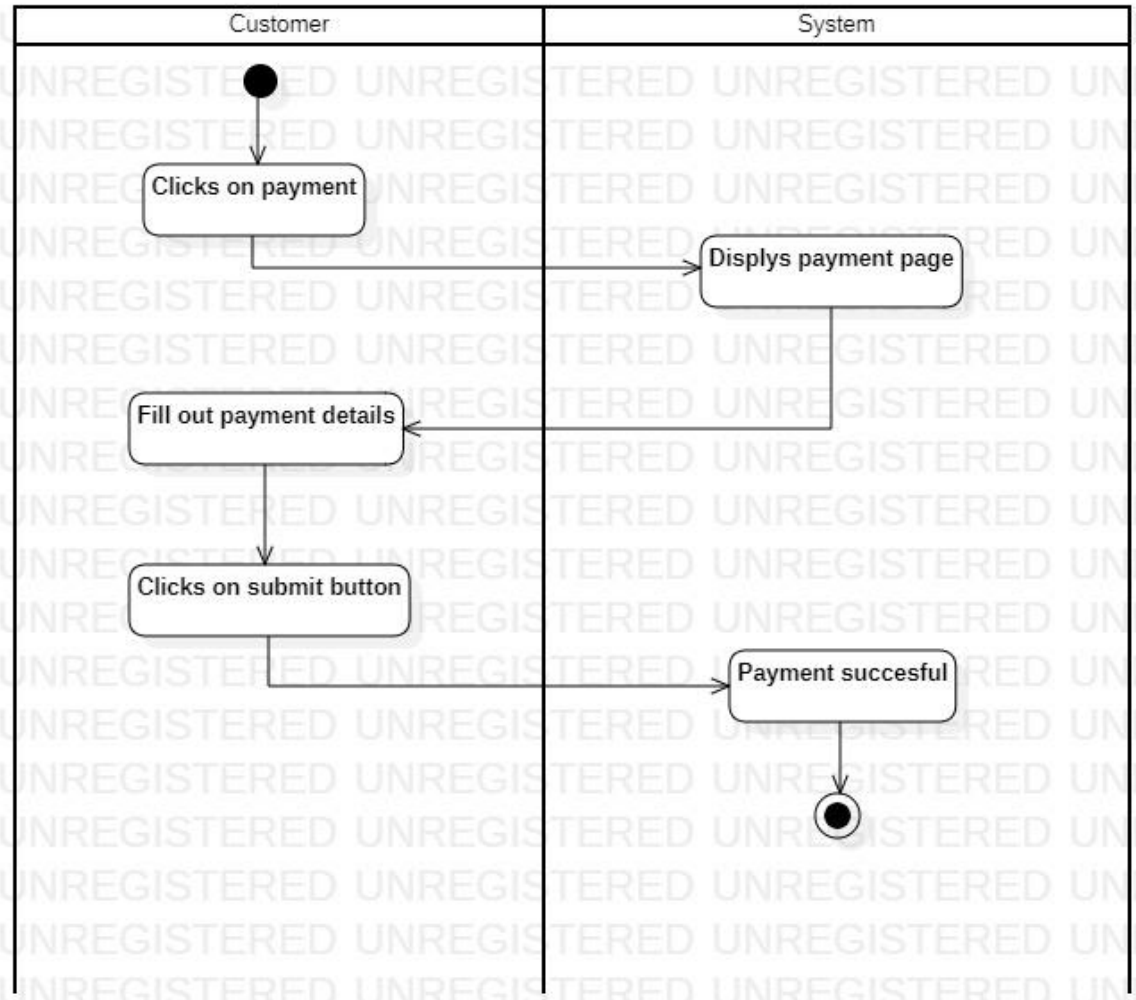
MEMBERSHIP


Customer
System
Clicks on membership
Displays membership page
Selecting particular membership
displays detailing page
Enters details
Clicks on submit button
Membership successful

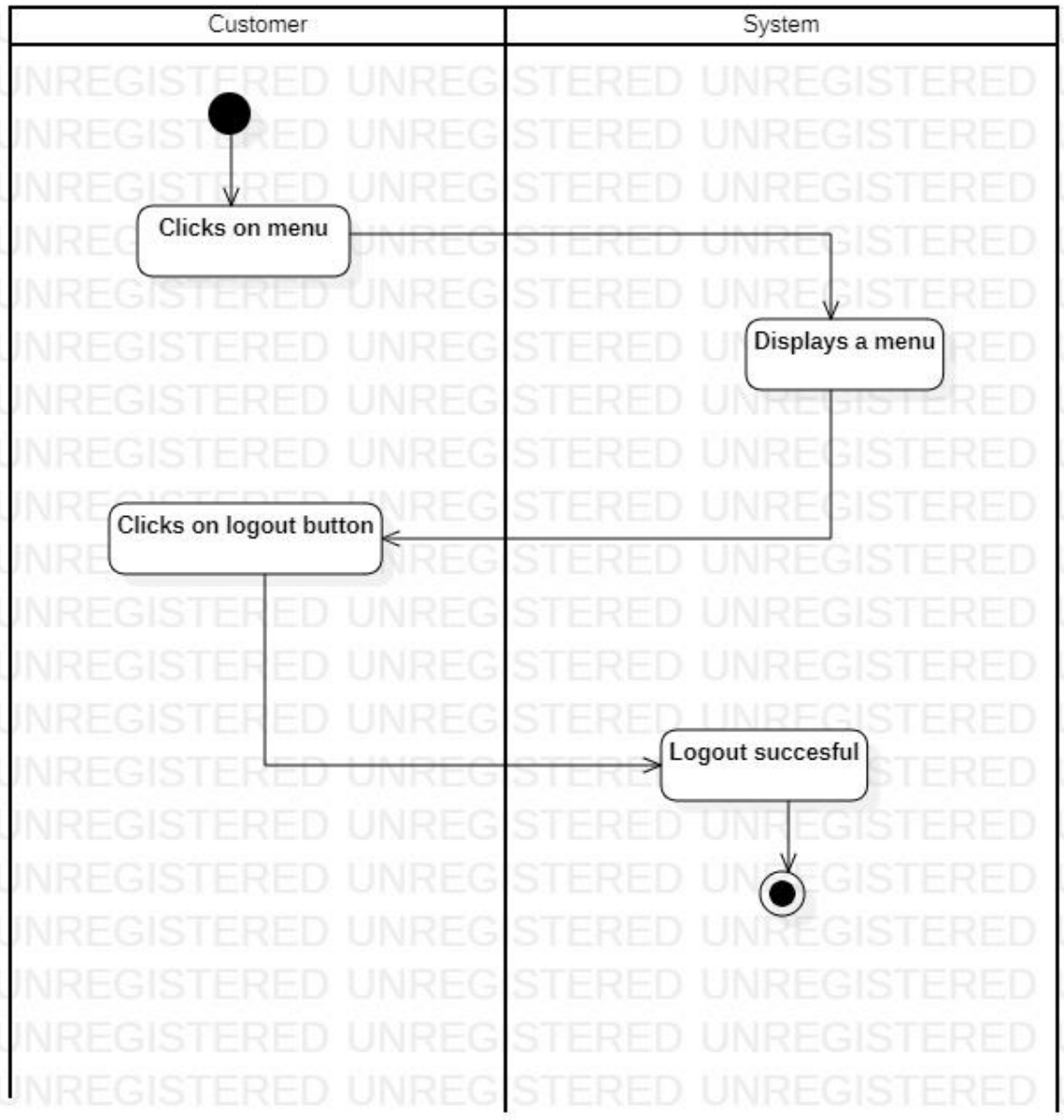
MAKE APPOINTMENT



PAYMENT



LOGOUT



Database structure

Database Structure

Tables

User: login

Field	datatype	key
email	String	
password	String	
userID	int	FK(customer)
Type(customer/admin)	binary	

User: Customer

Field	datatype	key
userID	int	PK
name	Char	
address	String	
photo	image	
phone	bigint	
gender	binary	

Modification

Field	datatype	key
modID	int	PK
type	String	
model	String	
cost	int	

Vehicles

Field	datatype	key
Regno.	int	PK
chassisno	String	
type	String	
model	string	
userID	int	FK(customer)

Appointment

Field	datatype	key
apID	Int	PK
userID	int	FK(customer)
modID	int	FK(Modification)
date	DATE	
tcost	int	

Product

Field	datatype	key
proID	int	PK
proname	String	
price	Int	

sizecode	int	
grip	string	
Type(tyre/accessory)	string	
pimage	image	

Membership

Field	**datatype**	**key**
mID	int	PK

customer_membership

Field	**datatype**	**key**
mID	int	FK(membership)
userID	int	FK(customer)
Plan		
regno	int	FK(vehicles)

Vehicle_tyre

Field	**datatype**	**key**
model	String	
proID	int	FK(product)

Orders

Field	**datatype**	**key**
oID	int	PK
userID	int	FK(customer)
proID	int	FK(product)

vehicle_mod

Field	**datatype**	**key**
regno	int	FK(vehicle)
modID	int	FK(modification)

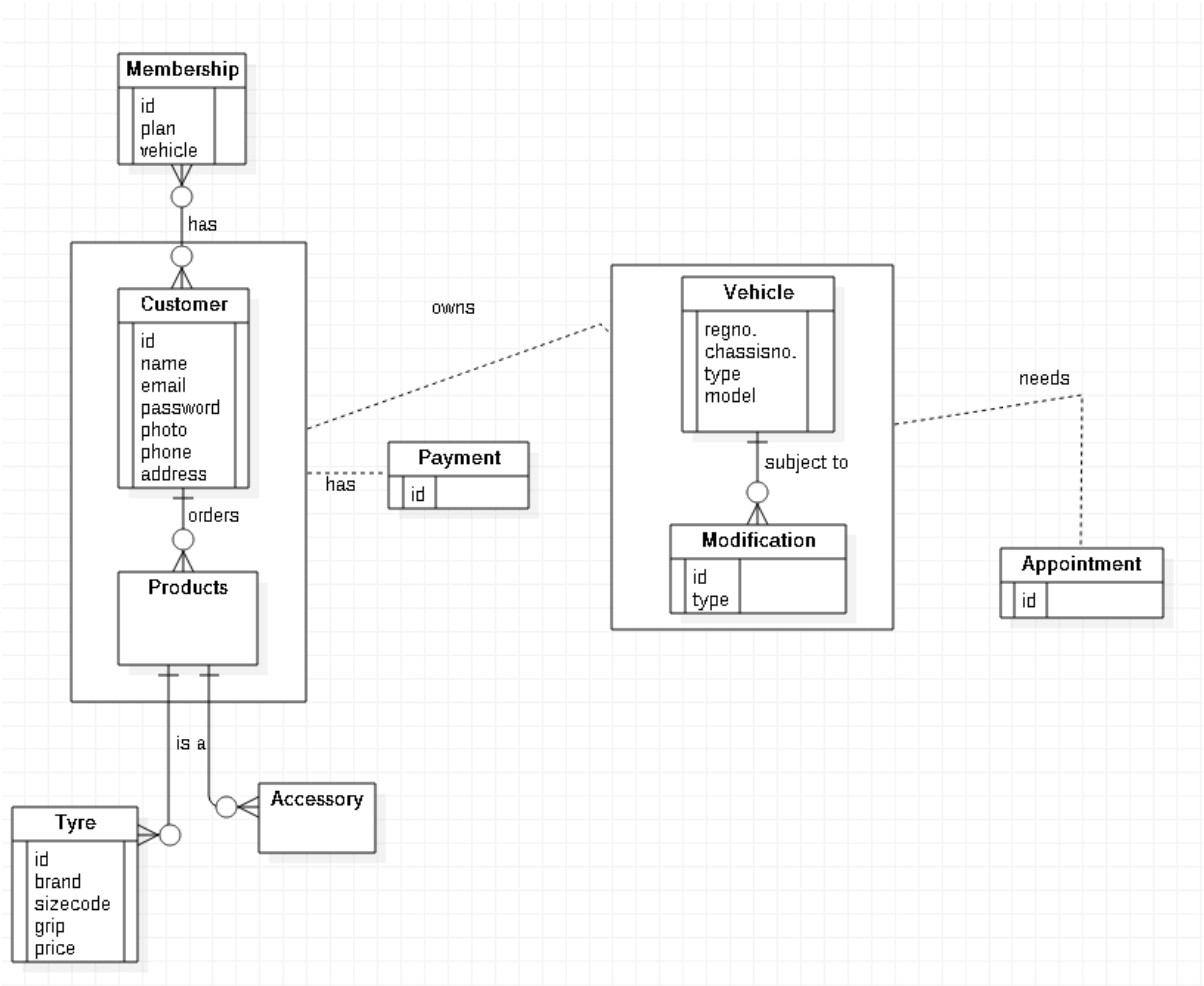
Cart

Field	**datatype**	**key**
userID	int	FK(customer)
proID	int	FK(product)

Payments

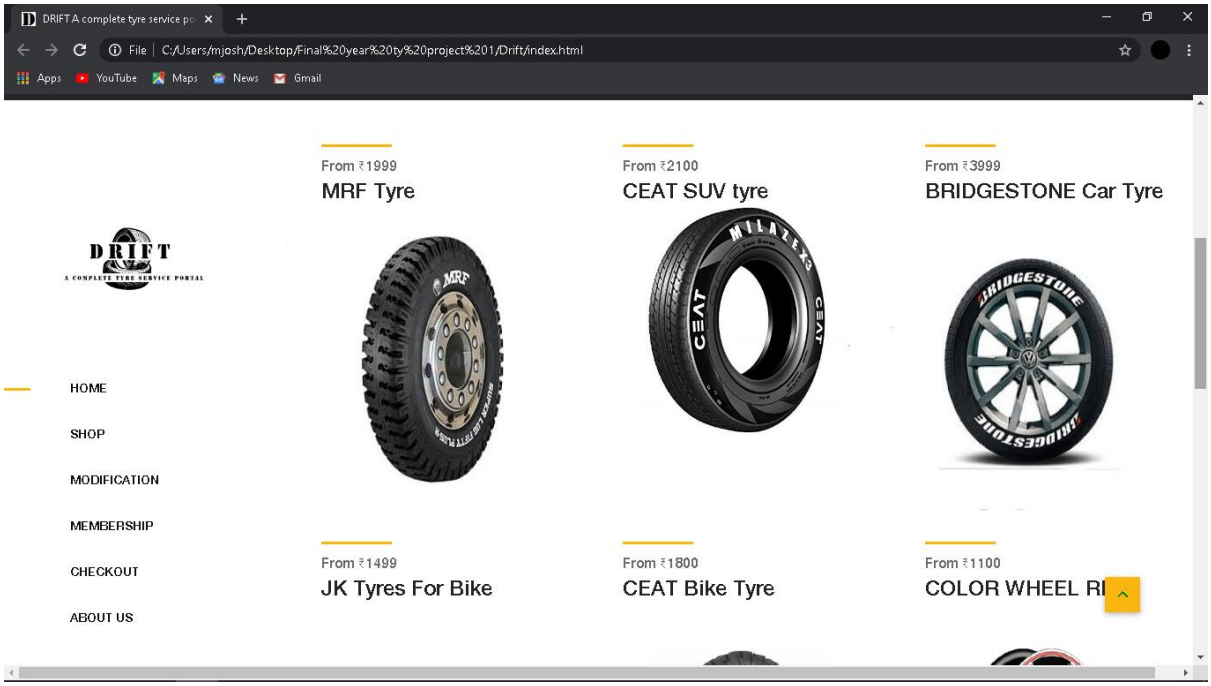
Field	**datatype**	**key**
pID	int	PK
oID	int	FK(orders)

E-R Diagram

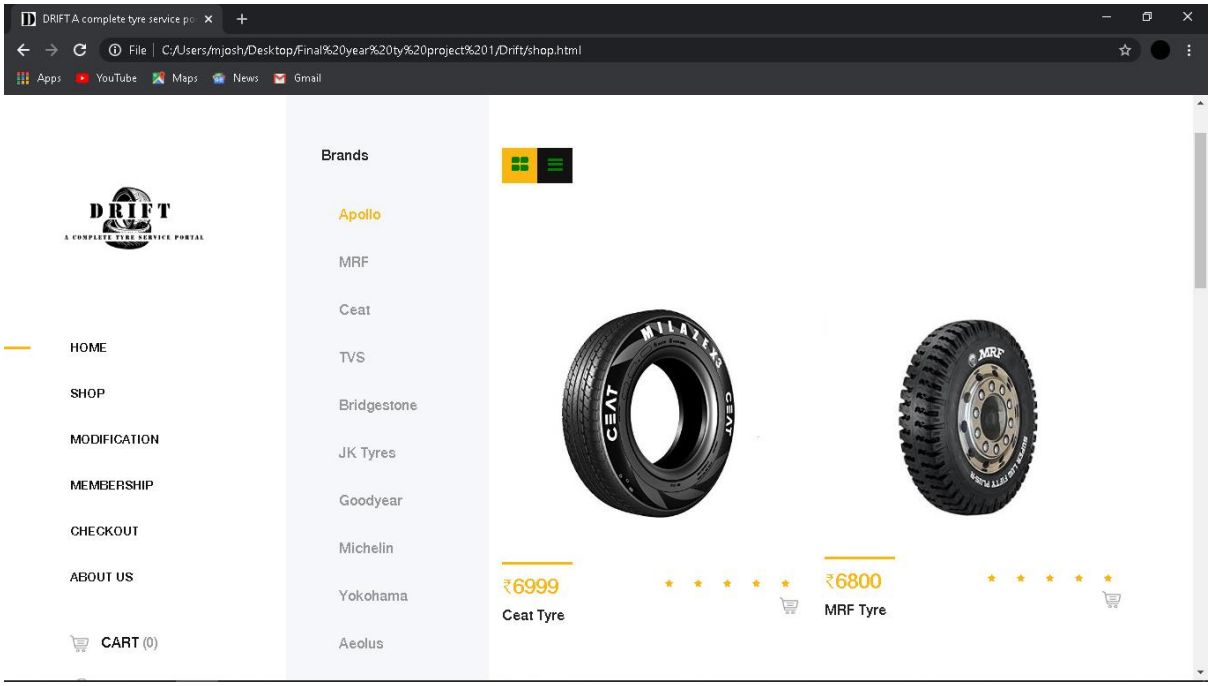

Membership
id
plan
vehicle
has
Customer
id
name
email
password
photo
phone
address
orders
Products
is a
Tyre
id
brand
sizecode
grip
price
Accessory
owns
has
Payment
id
Vehicle
regno.
chassisno.
type
model
subject to
Modification
id
type
needs
Appointment
id

Screenshots

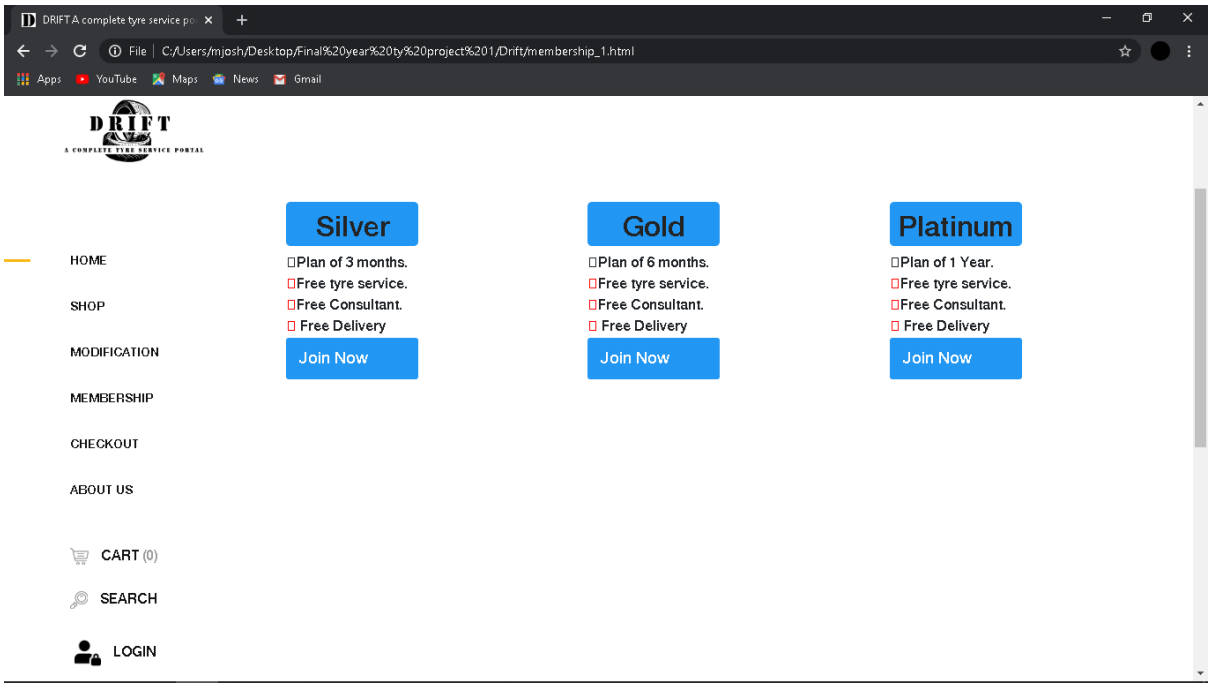
Home page



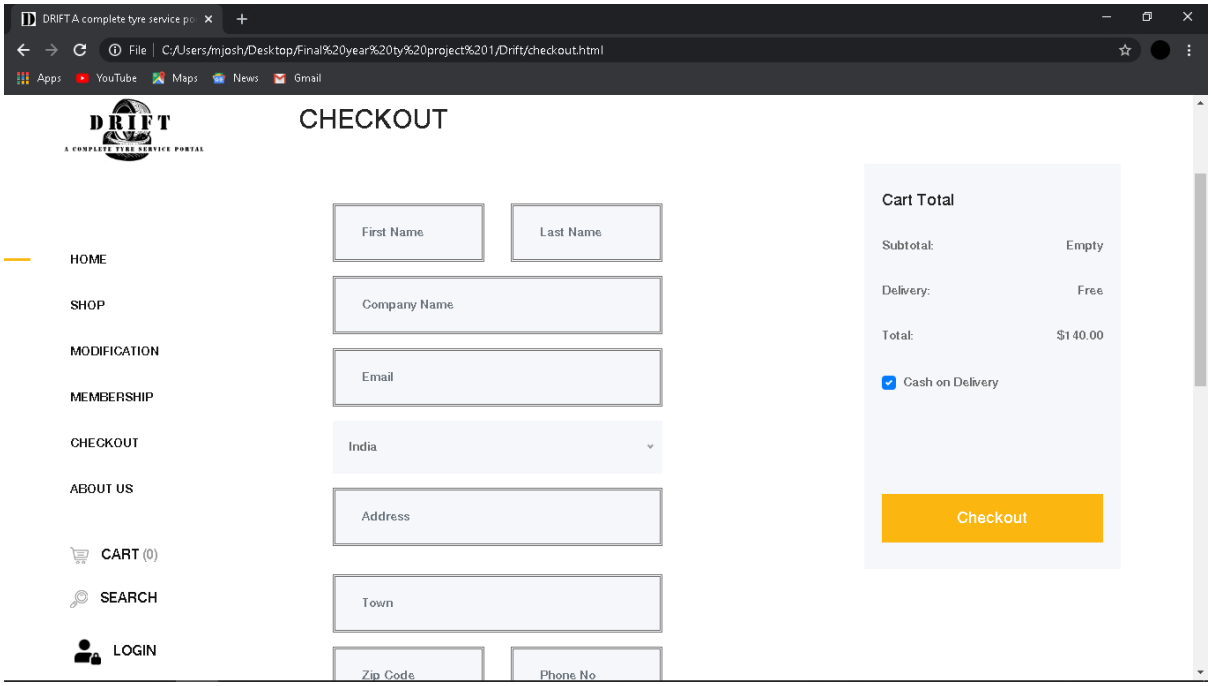
Products



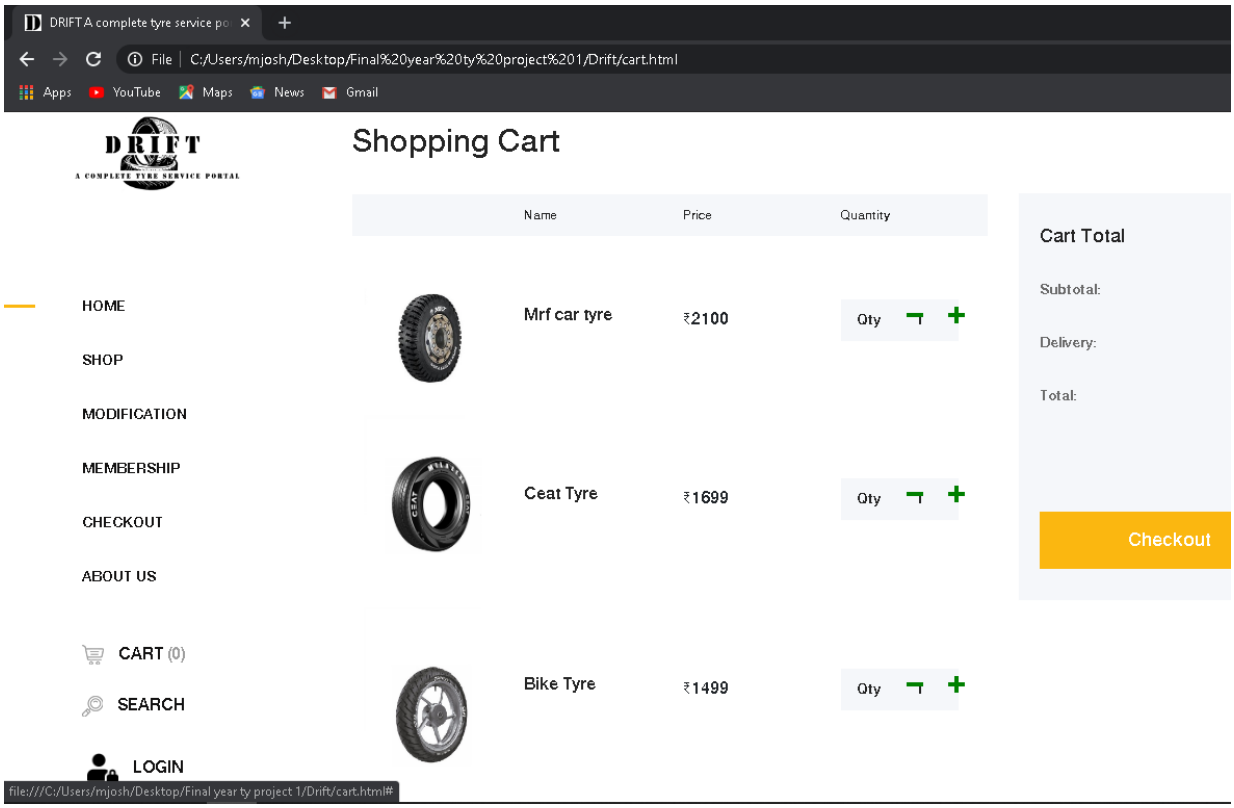
Membership



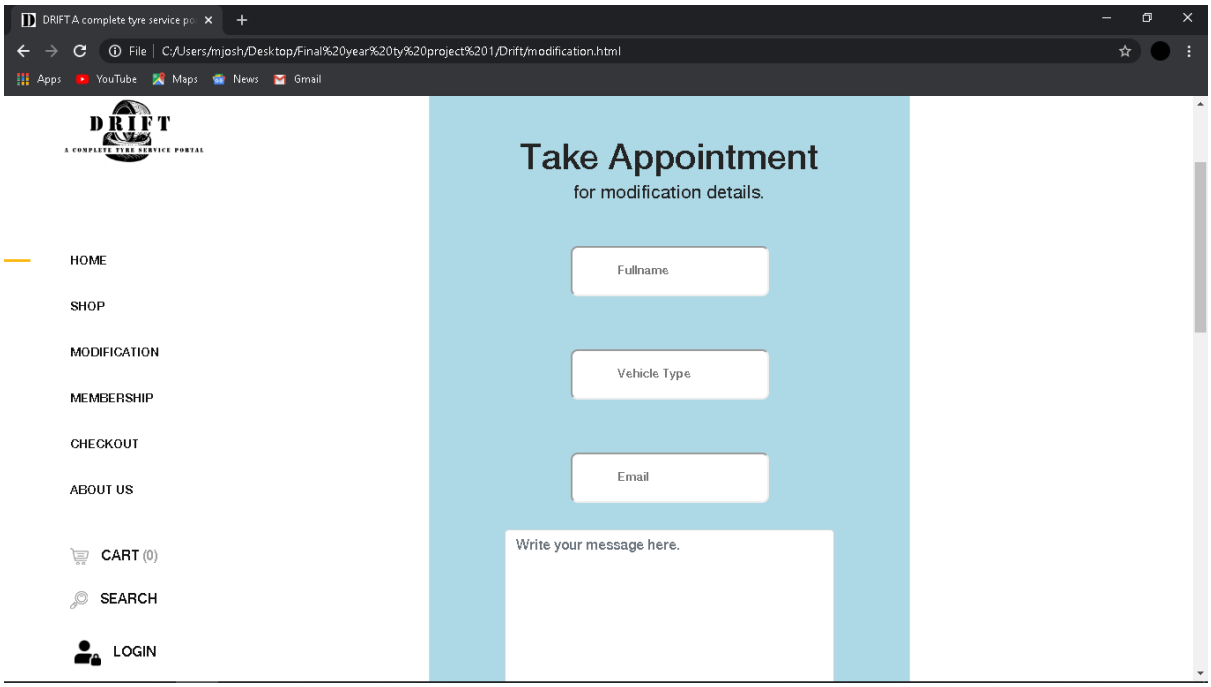
Order checkout



cart



Appointment



Tools and software used

Backend software tools

CODEIGNITER

CodeIgniter is an open-source software rapid development web framework, for use in building dynamic web sites with PHP. CodeIgniter is loosely based on the popular model–view–controller development pattern. While controller classes are a necessary part of development under CodeIgniter, models and views are optional. CodeIgniter can be also modified to use Hierarchical Model View Controller which allows the developers to maintain modular grouping of Controller, Models and View arranged in a sub-directory format.

CodeIgniter is most often noted for its speed when compared to other PHP frameworks. In a critical take on PHP frameworks in general, PHP creator Rasmus Lerdorf spoke at frOSCon in August 2008, noting that he liked CodeIgniter "because it is faster, lighter and the least like a framework."

PHP (with CodeIgniter)

PHP is a general-purpose programming language originally designed for web development. It was originally created by Rasmus Lerdorf in 1994 the PHP reference implementation is now produced by The PHP Group.[6] PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Pre-processor.

PHP code may be executed with a command line interface (CLI), embedded into HTML code, or used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in a web server or as a Common Gateway Interface (CGI) executable. The web server outputs the results of the interpreted and executed PHP code, which may be any type of data, such as generated HTML code or binary image data. PHP can be used for many programming tasks outside of the web context, such as standalone graphical applications and robotic drone control.

The standard PHP interpreter, powered by the Zend Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.

MySQL

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language.

MySQL is free and open-source software under the terms of the GNU General Public License, and is also available under a variety of proprietary licenses. MySQL was owned and sponsored by the Swedish company MySQL AB, which was bought by Sun Microsystems (now Oracle Corporation). In 2010, when Oracle acquired Sun, Widenius forked the open-source MySQL project to create MariaDB.

MySQL is a component of the LAMP web application software stack (and others), which is an acronym for Linux, Apache, MySQL, Perl/PHP/Python. MySQL is used by many database-driven web applications, including Drupal, Joomla, phpBB, and WordPress. MySQL is also used by many popular websites, including Facebook, Flickr, MediaWiki, Twitter, and YouTube.

Frontend Software Tools

HTML

Hypertext Mark-up Language (HTML) is the standard mark-up language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as <img /> and <input /> directly introduce content into the page. Other tags such as <p> surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a mark-up language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .CSS file, and reduce complexity and repetition in the structural content. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

The name cascadin*g* comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable. In addition to HTML, other mark-up languages support the use of CSS including XHTML, plain XML, SVG, and XUL.

JS

JavaScript often abbreviated as JS, is a high-level, just-in-time compiled, multi-paradigm programming language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it, and major web browsers have a dedicated JavaScript engine to execute it.

As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative (including object-oriented and prototype-based) programming styles. It has APIs for working with text, arrays, dates, regular expressions, and the DOM, but the language itself does not include any I/O, such as networking, storage, or graphics facilities. It relies upon the host environment in which it is embedded to provide these features. Although there are similarities between JavaScript and Java, including language name, syntax, and respective standard libraries, the two languages are distinct and differ greatly in design. JavaScript was influenced by programming languages such as Self and Scheme.

Middleware and Auxiliary Tools

ADOBE PHOTOSHOP

Adobe Photoshop is a raster graphics editor developed and published by Adobe Inc. for Windows and macOS. It was originally created in 1988 by Thomas and John Knoll. Since then, the software has become the industry standard not only in raster graphics editing, but in digital art as a whole. The software's name has thus become a generic trademark, leading to its usage as a verb although Adobe discourages such use. Photoshop can edit and compose raster images in multiple layers and supports masks, alpha compositing and several colour models including RGB, CMYK, CIELAB, spot colour, and duotone.

Photoshop uses its own PSD and PSB file formats to support these features. In addition to raster graphics, this software has limited abilities to edit or render text and vector graphics as well as 3D graphics and video. Its feature set can be expanded by plug-ins; programs developed and distributed independently of Photoshop that run inside it and offer new or enhanced features.

STAR UML

StarUML is a UML tool by MKLab. The software was licensed under a modified version of GNU GPL until 2014, when a rewritten version 2.0.0 was released for beta testing under a proprietary license. After being abandoned for some time, the project had a revival to move from Delphi to Java/Eclipse and then stopped again. In 2014, a rewritten version was released as proprietary software. However, the open source version's community is still active. The stated goal of the project was to replace larger, commercial applications such as Rational Rose and Borland Together.

StarUML supports most of the diagram types specified in UML 2.0. It is currently missing timing and interaction overview diagrams. Currently the newest version of StarUML by the original authors is available for download under the handle "StarUML 2". The public beta is available, although not under the GPL license. Final price and new license type yet remain unknown. This version has been completely rewritten from scratch and includes among many features support for extensions, OS X compatibility and a new graphical user interface.

Future enhancements

Future enhancements

In future, we are planning to improve our system by adding more features to it like We will add more vehicle services to it and add a simple and secured payment system.

We will also develop app for other platforms. So that other platform users can also reach us.

We will also Improve our UI as and when required to make it easier and more comfortable for customers. We will make design that works in all devices.

We will improve the backend so that it will work for more customers and a greater number of users at the same time.

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