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Name: Syara.

Version: 1.0.0

Date: 5th of Jan. 2020

A project submitted in partial fulfillment of the requirements of the Coding Academy by Orange.

Abstract

Syara is a website that aims to ease the processes of buying and looking for various car accessories and equipment throughout a single E-commerce website by categorizing and filtering products from all over the world into a single online market.

Syara reduces costs and time consumption due to its user-friendly environment that was built to not require any prior skills in technologies except the basics of surfing the internet and using your personal computer or mobile device.

Table of content

Contents

Introduction 4
Problem Statement: 5
Solution 5
Development Methodology: 6
Requirement analysis: 7
Analysis model: 10
Use case diagram: 10
Design phase: 11
Chosen development technologies: 11
Frontend: 11
Backend: 11
Environment: 11
Class diagram: 12
Data Flow Diagram(DFD): 12
Implementation Strategy: 13
Test Methodology: 14
Project Final Report: 15
Unexpected Events: 15
Project Performance: 16
Appendix: 17

Chapter one

Planning

Introduction

Worldwide, the number of car brands, accessories and equipment have increased dramatically, making the process of visiting, acknowledging and checking all of them extremely difficult as it is considered time and money consuming, exhausting and inconvenient.

With modern technology's doors being opened, E-commerce (Electronic Commerce) has given us the opportunity to skip the process of physically visiting and checking foreign and/or far car stores into a single website surfing that contains specifically collected details about the desired products. Using E-Commerce, users can discover products from all over the world, read its details and specifications, read other's commentary and buy their desired equipment by a click of a button.

Adding such a technology will help better the engagement of the targeted audience, create an experience that will be valued by the users and helps demonstrate the willingness to keep up with the modern technology.

Problem Statement:

The project's benefit is to ease the processes of buying and exploring car accessories, equipment and requisites through E-Commerce web technologies.

The system consists of:

1. Components and needs:
   -PC (Personal Computer)/mobile/tablet.
   -Internet browser.
   -Internet connection.

2. Frontend:
   -End-user: home, shop, cart, login & register, product page, contact us and about us pages.
   -Admin: admin control panel page.

3. Backend:
   -PHP Laravel based backend.
   -MySQL database.

Solution

Development of a full stack E-Commerce website that eases the access to different cars accessories, requisites and equipment through standard web development technologies and standards conventions.

Development Methodology:

refers to software development methodologies centered round the idea of iterative development, where requirements and solutions evolve through collaboration between self-organizing cross-functional teams. The ultimate value in Agile development is that it enables teams to deliver value faster, with greater quality and predictability, and greater aptitude to respond to change.

When to use the Agile:

- When new changes are needed to be implemented.
- Limited planning is required to get started with the project.
- Both system developers and stakeholders alike, find they also get more freedom of software development until more of better data is provided for important decisions.
- Cost of change becomes minimal.
- Emphasis on teamwork, transparency and continuous improvement.

Objectives

- Saving time and effort.
- Entertainment and life style.
- Reaching the global car accessories and equipment market.
- Syara is easier for seniors and disabled people to check stores they cannot visit.

Chapter two.

Analysis

Requirement analysis:

Functional requirements:

- Users can take a general look on the available products without filtering.
- Users can be shown specific products using categories and subcategories.
- Users can press on the shown product to go to the product-specific page.
- Users can hover on the product's image(s) to zoom in and take a better look.
- Users can choose from the available quantity and it will automatically calculate costs.
- Users can choose from the given product's attributes to fit their needs.
- Users can click on add to cart to add their desired product to the cart page.
- Users can click on the cart page to view the carted items and their quantity.
- Users can check the final bailout cost of their desired to be bought products.
- Users can activate coupons to access a specific discount on their bailout cost.
- Users can login through the login page by Email and password.
- Users can check given commentary and summary of each product within its page.
- Users can visit the homepage to get a general idea about the website.
- Users can register a new account in the register page after filling the required credentials.
- Admin can access the admin panel page using admin credentials.
- Admin can read, add, update and delete categories.
- Admin can read, add, update and delete products.
- Admin can add extra pictures and attributes to the desired product.
- Admin can change his password through the admin control panel.

Refer to Appendix for screenshots

Non-Functional requirements

External Non-functional Requirements:

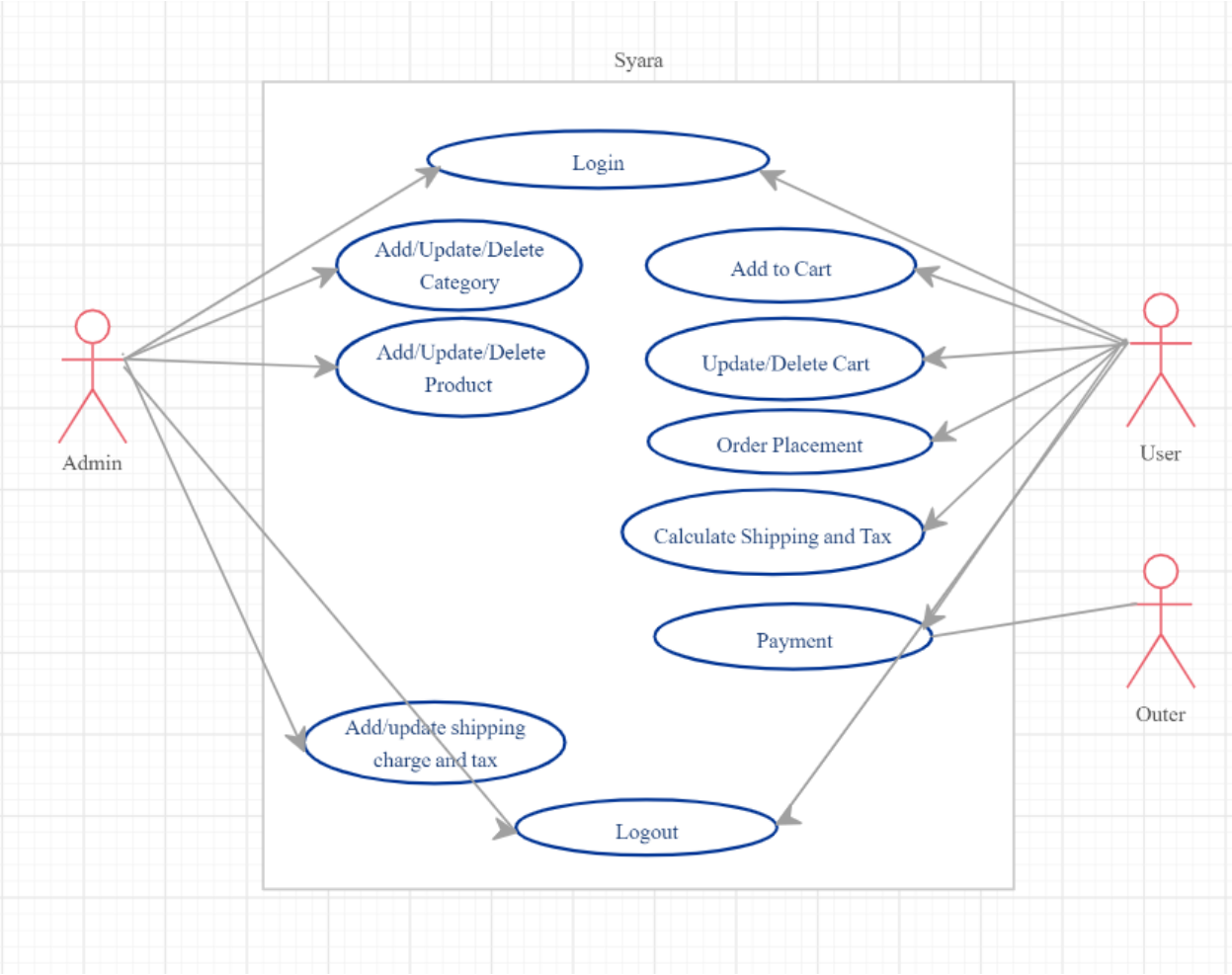
- **Usability:**
  The system is simple enough for both new and experienced internet and web application users as it only needs the basics of interacting with a computer and an internet connection.
- **Reliability:**
  The system provides a reality-like experience that is rich of product details and simplicity.
- **Appearance:**
  The system's appearance is appealing to the eye as it offers a simple fully interactive and responsive interface.
- **Availability:**
  The system is initially available and will never shut down unless of unexpected erros.
- **Privacy:**
  The system does not collect any personal information and has no undesired access to the device's applications and hardware such as cameras or mics.
- **Scalability and Adaptability:**
  The system is set to interact and be viewed on different devices and internet browsers with ease.
- **Usefulness:**
  The system meets the relevant needs of an E-Commerce website without the usual consummation of resources such as time, costs and travelling.
- **Delightfulness:**
  The system's experience goes beyond expectations of a usual visit to the market due to the rich information and the ease of viewing products thus, creating an unforgettable experience.

Internal non-functional requirements

- **Configuration:**
  The system needs a device to the run the website, a connection to the internet and standard internet surfing experience/skills.
- **Environment:**
  The system basically runs in any environment such as houses and companies and on any responsive device.
- **Portability:**
  The system is considered portable as it is a virtual market.
- **Manageability:**
  The system is easy to manage through basic menus and basic application's methods of use.
- **Internationalization:**
  The system can be used by the whole globe and is not limited to a single region.

Analysis model:

Use case diagram:



Chapter three.

Design.

Design phase:

CRC (Class Responsibility Collaboration) cards have been made depending on the main scenario to determine what functions and variables we will be using [See Appendix]. several blue prints were designed and were shown to a random sample of people to decide the best one. Class diagram was made depending on the CRC cards. Several opinions were taken and several tests have been done to decide the best development technologies to be used in the creation of the website.

Chosen development technologies:

Frontend:

HTML5 / CSS3 / SASS / Bootstrap / Blade engine / JavaScript / jQuery / Easyzoom / Matrix / JS Plugins

Font Awesome / Google Fonts / SVGs / Pictures.

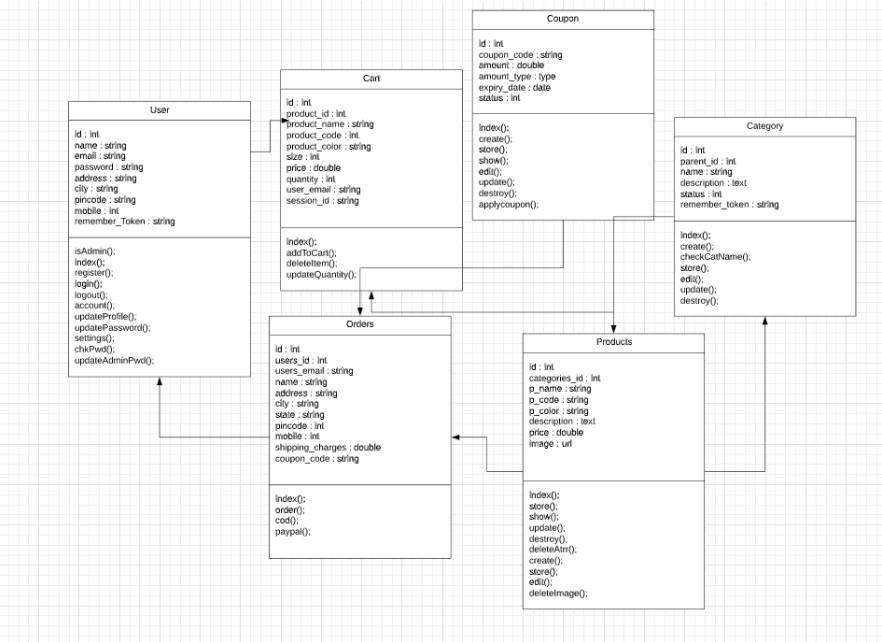
Backend:

PHP / Laravel / JWT / MariaDB / Apache HTTP Server.

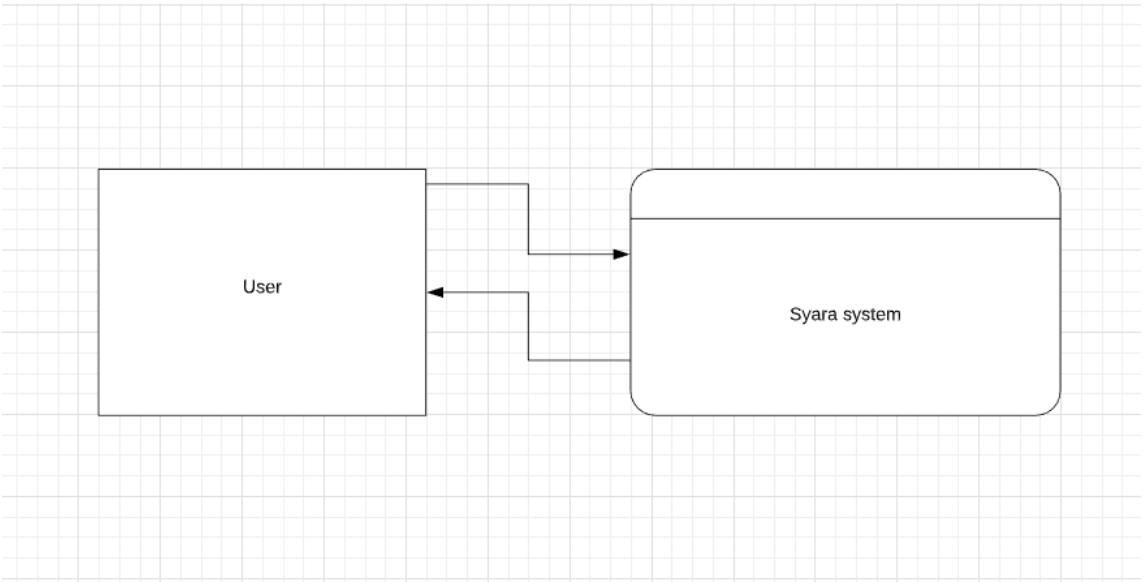
Environment:

Visual Studio Code / XAMPP / PhpMyAdmin / Google Chrome / Mozilla Firefox / Internet Explorer / Google Chrome Extensions / Lucid Chart / Microsoft Office Word.

Class diagram:



Data Flow Diagram(DFD):



LVL (0) Context Diagram.

Chapter four.

Implementation.

Implementation Strategy:

Dynamic programming:

One disadvantage of using Divide-and-Conquer is that the process of recursively solving separate sub-instances can result in the same computations being performed repeatedly since identical sub-instances may arise.

The idea behind dynamic programming is to avoid this pathology by obviating the requirement to calculate the same quantity twice.
The method usually accomplishes this by maintaining a table of sub-instance results.
Dynamic Programming is a Bottom-Up Technique in which the smallest sub-instances are explicitly solved first and the results of these used to construct solutions to progressively larger sub-instances.

In contrast, Divide-and-Conquer is a Top-Down Technique which logically progresses from the initial instance down to the smallest sub-instance via intermediate sub-instances

Test Methodology:

Beta testing was used, which lets a sample of people use the website to try it and check if there is any problem that could face the user before releasing it.

Unit testing was used throughout the whole implementation of the website to configure the basic internal website components.

Their feedback can be written as points, which are:

1- The design is way too dark.
2- One of the users asked for the quantity counter being not available.
3- Including the login and register in a single page instead of two which was confusing.

We could solve their problems by:

1- Changed the style into a simplicity driven white, blue and green approach.
2- A quantity counter has been added.
3- Log in and register pages have been combined into a single page.

Chapter five.

Conclusion and maintenance.

Project Final Report:

Project name	Syara
Description	Syara is a website that aims to ease the processes of buying and looking for various car accessories and equipment throughout a single E-commerce website by categorizing and filtering products from all over the world into a single online market.
Project Sponsor	None
Author(s)	Yaser Muhammed Jaser Saleh.
Date	5/1/2020

Unexpected Events:

Description	Impact	Actions Taken
JSON web token usage	Schedule extended	outside recourses: courses on the internet.

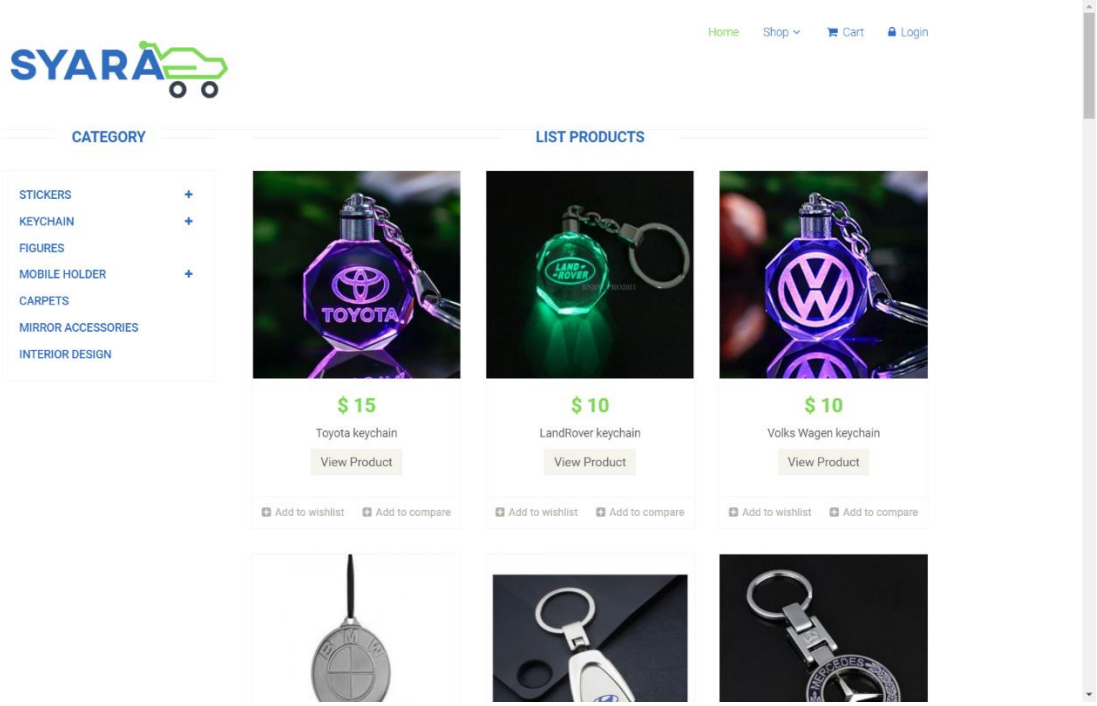
Project Performance:

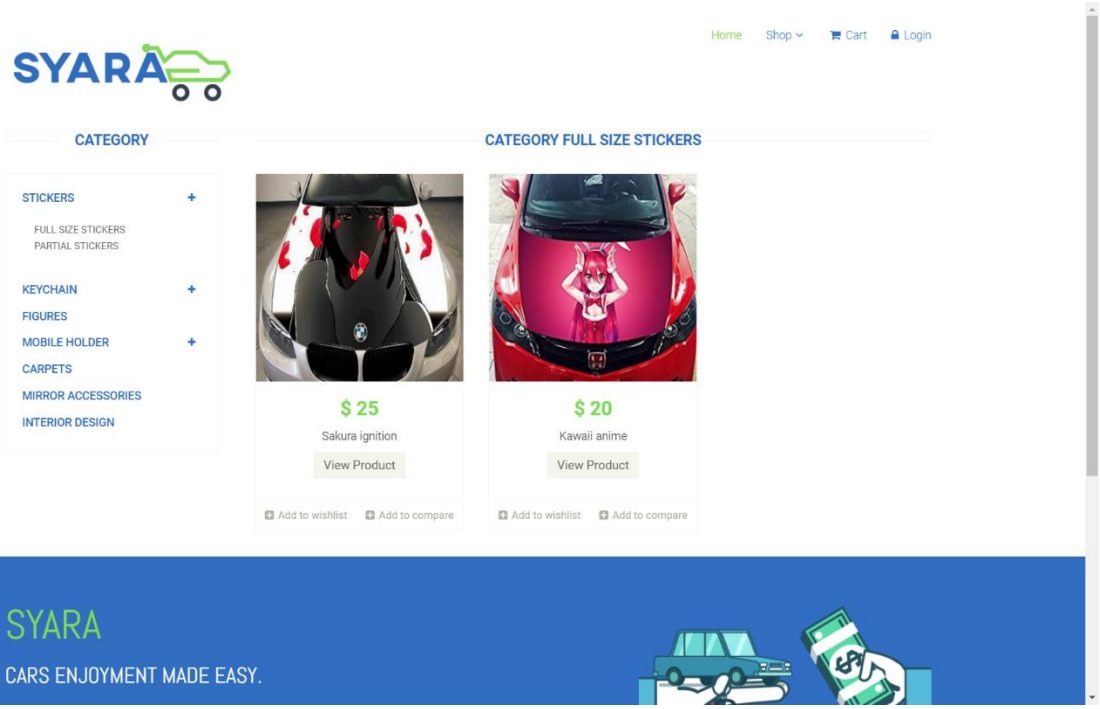
On Schedule					
Planned Finish Date	**Actual Finish Date**	**Variance (in days)**	**On Schedule**	**Ahead of Schedule**	**Behind Schedule**
20-2-2020	5-1-2020	35 days on advance	☐	☒	☐

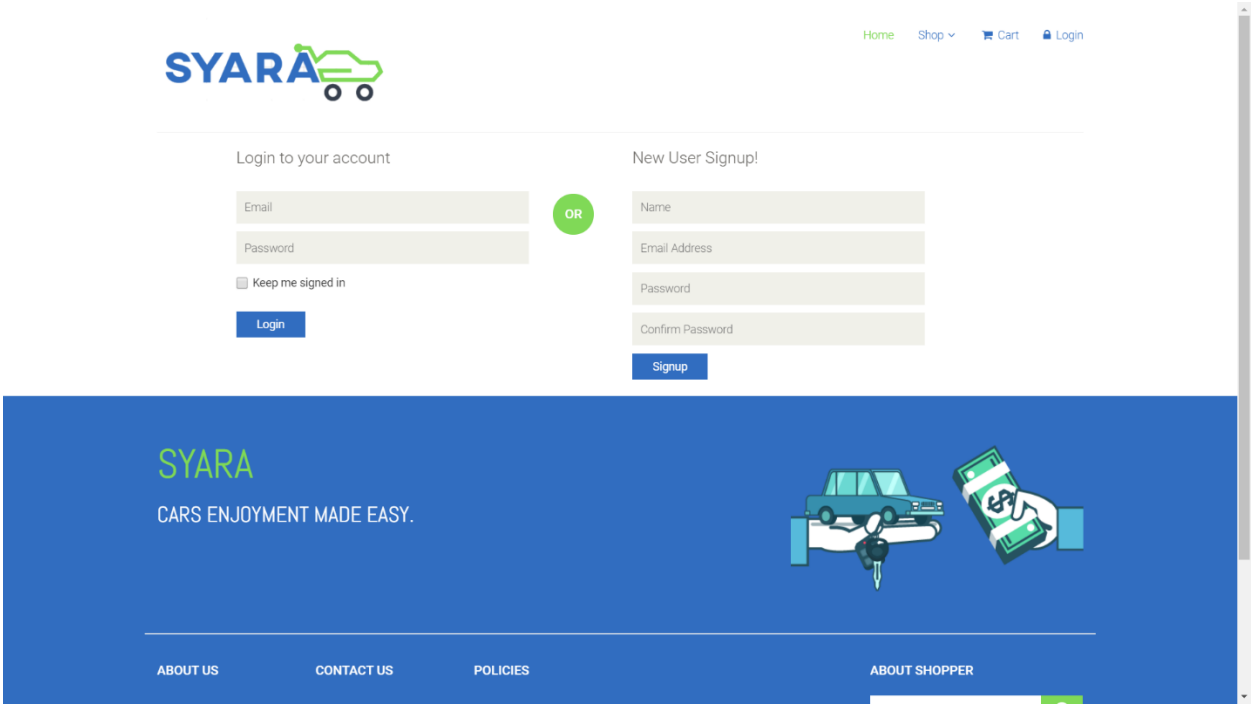
On Budget					
Approved Budget	**Spent Budget**	**Variance (in $)**	**On Budget**	**Under Budget**	**Over Budget**
[$ 0]	[$ 0]		☐	☒	☐

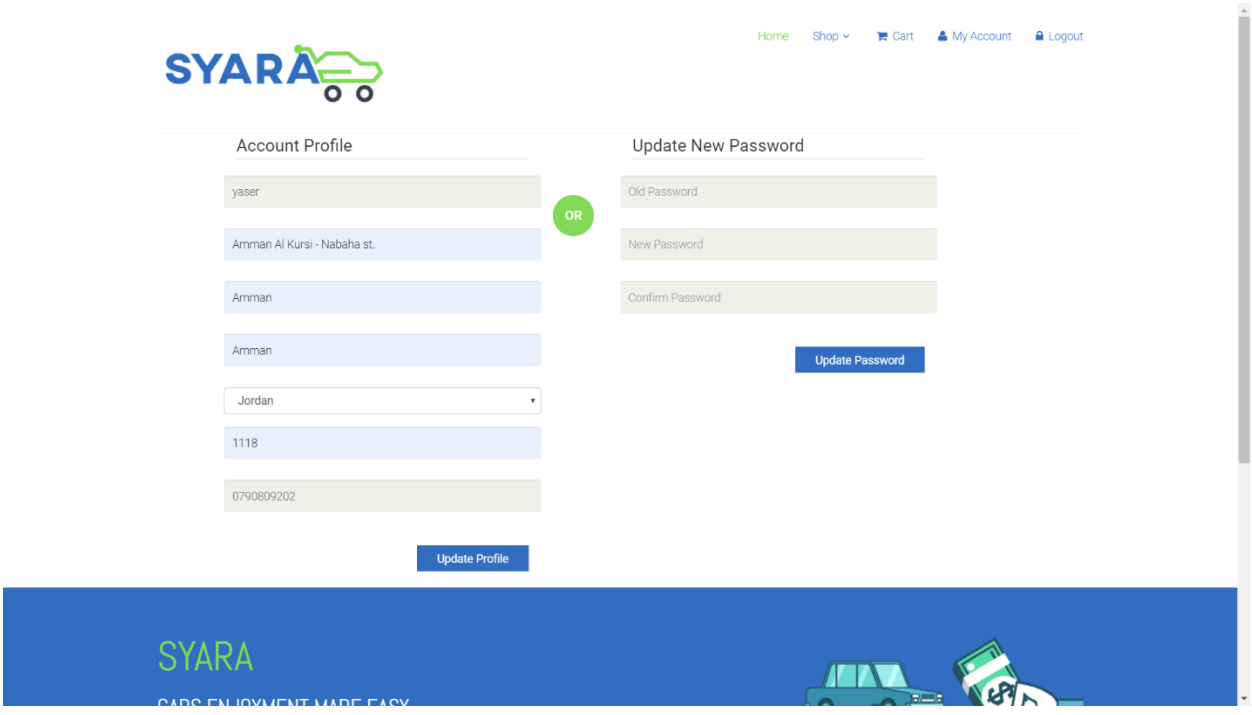
Meeting Expectations		
Success Criteria	**Criteria Met**	**Comments**
Expected that the application will have more categories.	☐	Lack of time and budget
Expected that the application will have more features available.	☐	Lack of time and experience

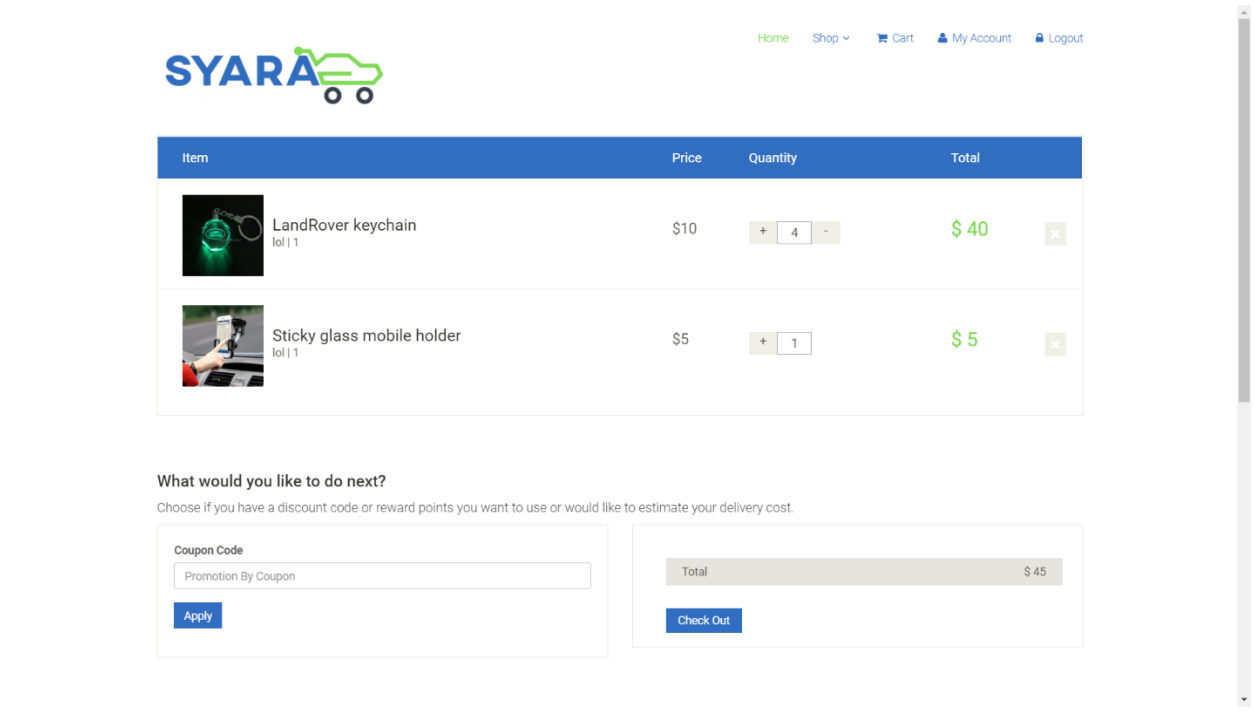
Appendix:

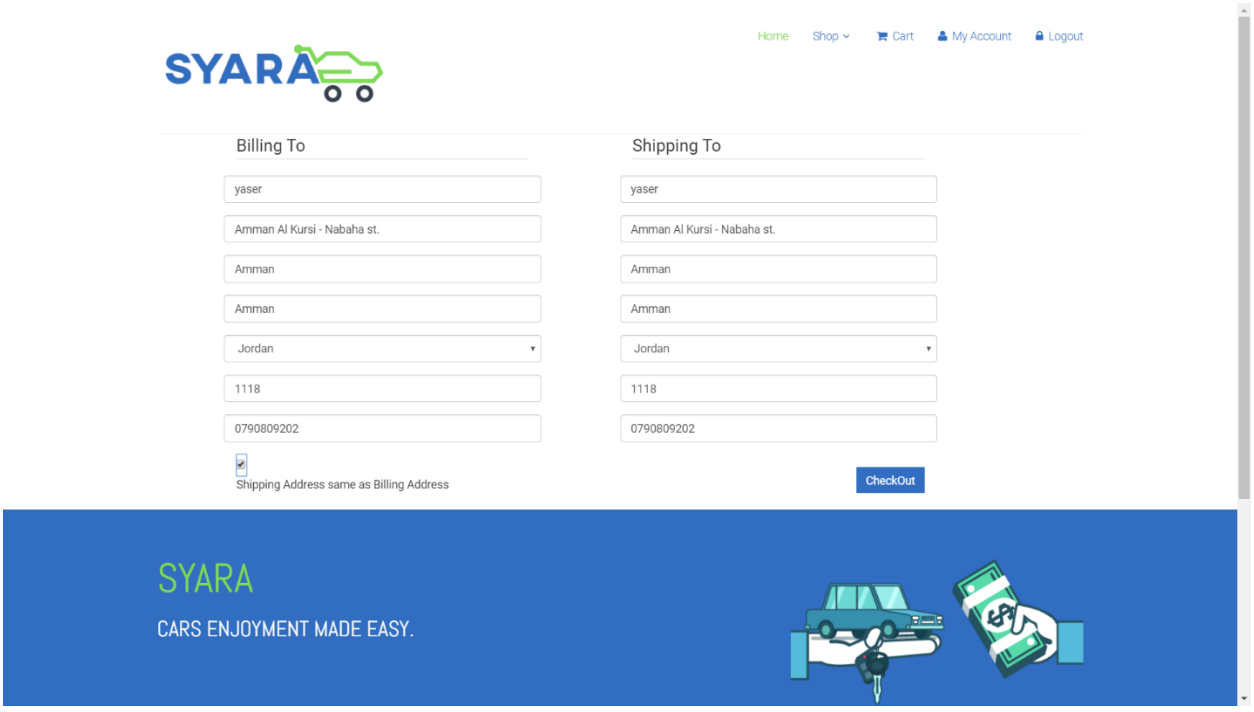

SYARA
Home
Shop
Cart
Login
CATEGORY
LIST PRODUCTS
STICKERS
KEYCHAIN
FIGURES
MOBILE HOLDER
CARPETS
MIRROR ACCESSORIES
INTERIOR DESIGN
$ 15
Toyota keychain
View Product
Add to wishlist
Add to compare
$ 10
LandRover keychain
View Product
Add to wishlist
Add to compare
$ 10
Volks Wagen keychain
View Product
Add to wishlist
Add to compare

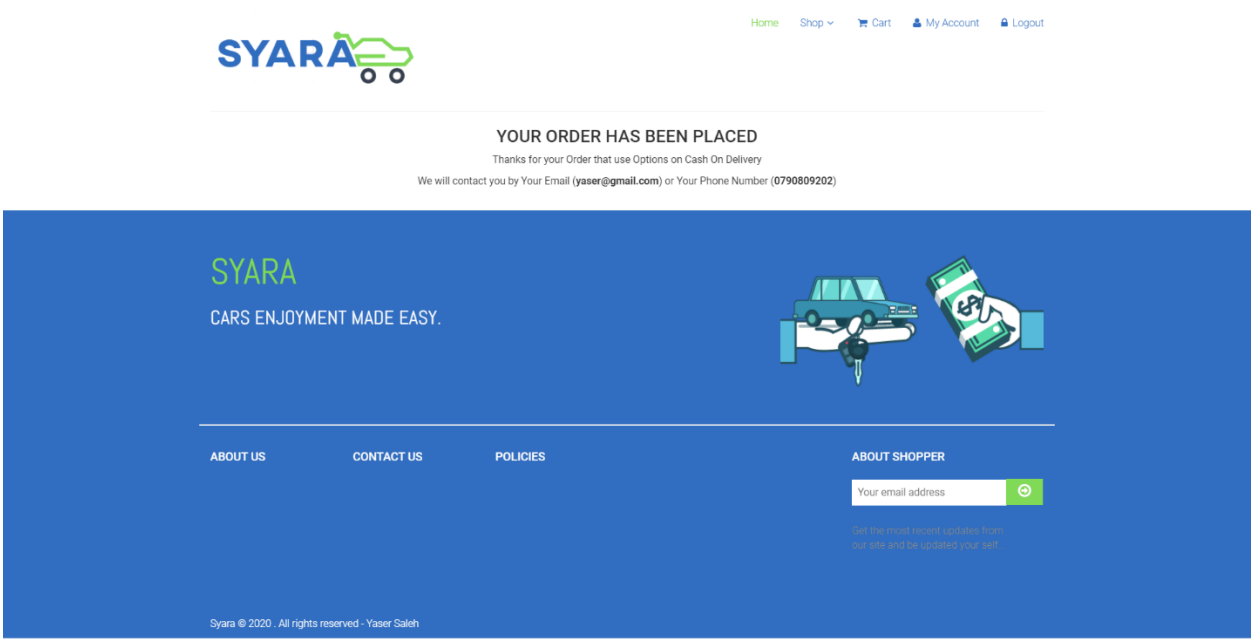

SYARA
Home
Shop
Cart
Login
CATEGORY
CATEGORY FULL SIZE STICKERS
STICKERS
FULL SIZE STICKERS
PARTIAL STICKERS
KEYCHAIN
FIGURES
MOBILE HOLDER
CARPETS
MIRROR ACCESSORIES
INTERIOR DESIGN
$ 25
Sakura ignition
View Product
Add to wishlist
Add to compare
$ 20
Kawaii anime
View Product
Add to wishlist
Add to compare
SYARA
CARS ENJOYMENT MADE EASY.

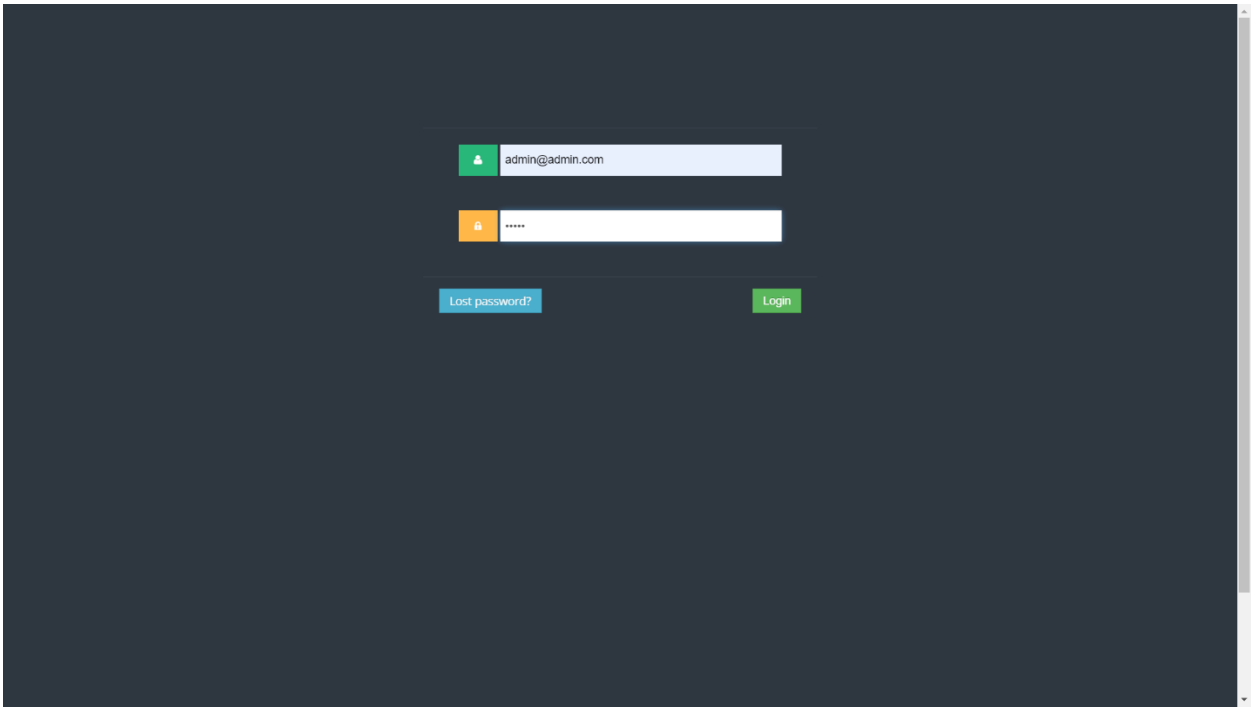

SYARA
Home
Shop
Cart
Login
Login to your account
Email
Password
Keep me signed in
Login
OR
New User Signup!
Name
Email Address
Password
Confirm Password
Signup
SYARA
CARS ENJOYMENT MADE EASY.
ABOUT US
CONTACT US
POLICIES
ABOUT SHOPPER

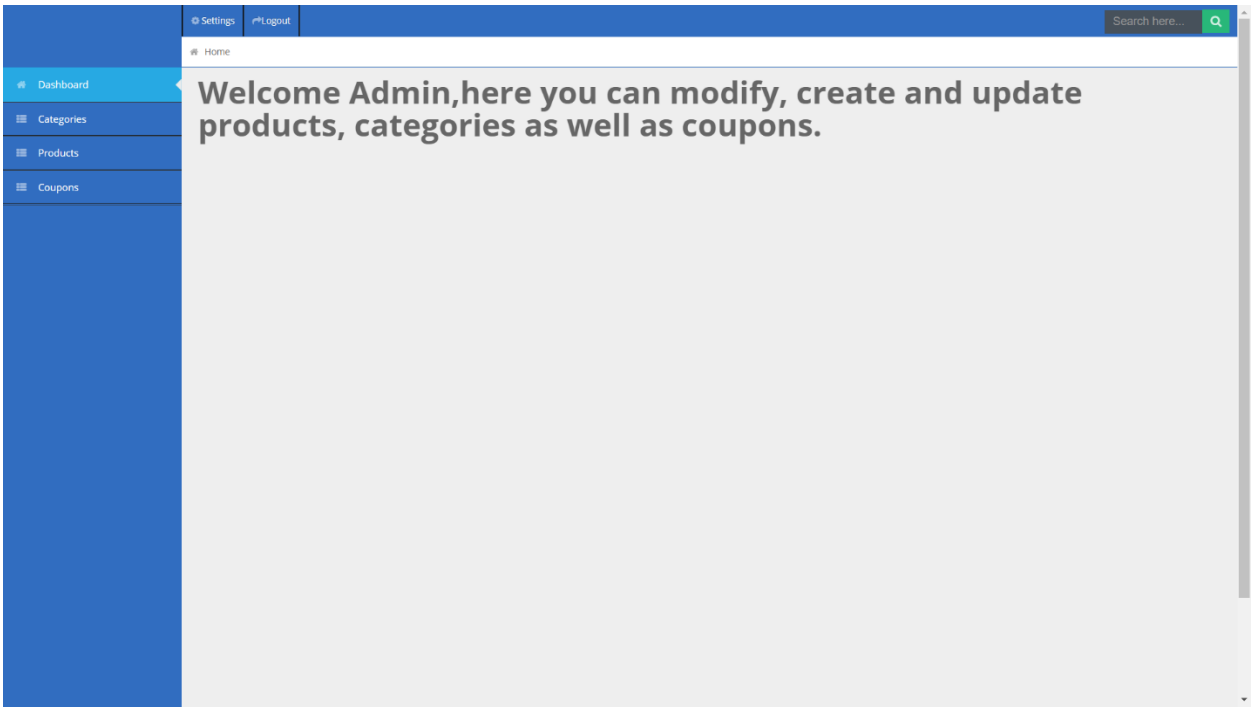

SYARA
Home
Shop
Cart
My Account
Logout
Account Profile
yaser
Amman Al Kursi - Nabaha st.
Amman
Amman
Jordan
1118
0790809202
Update Profile
OR
Update New Password
Old Password
New Password
Confirm Password
Update Password
SYARA

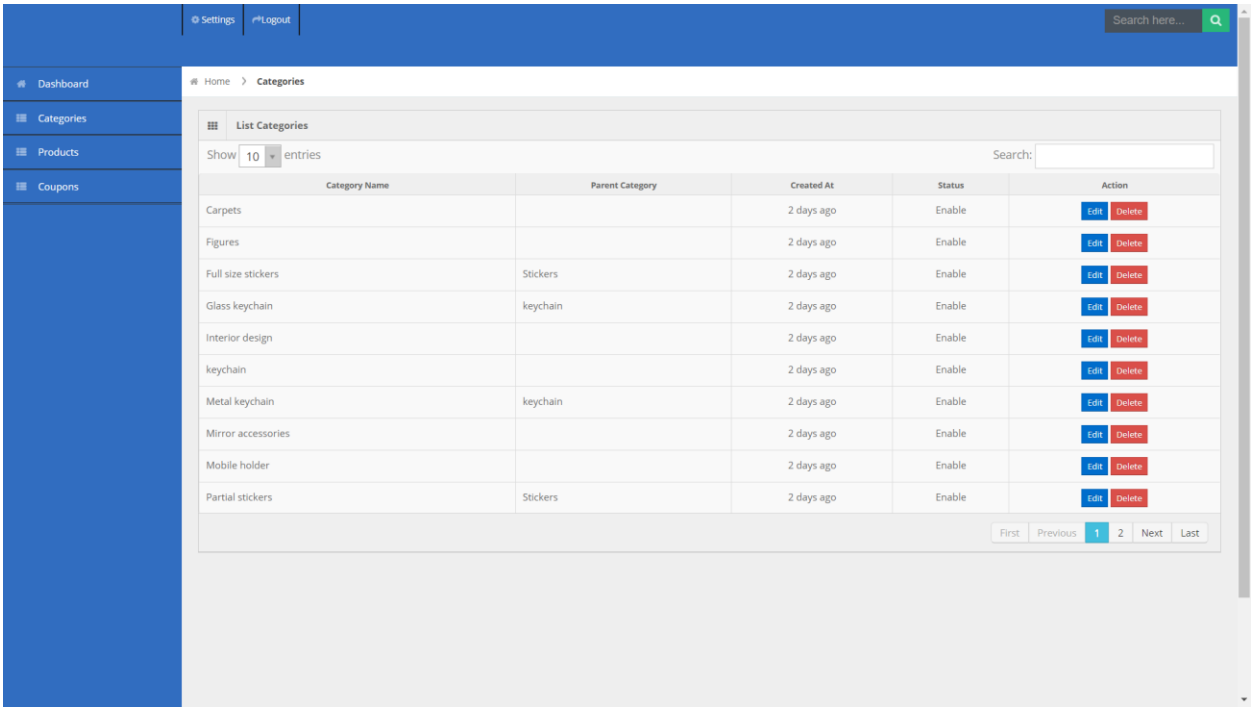

SYARA
Home
Shop
Cart
My Account
Logout
Item
Price
Quantity
Total
LandRover keychain
lol | 1
$10
4
$ 40
Sticky glass mobile holder
lol | 1
$5
1
$ 5
What would you like to do next?
Choose if you have a discount code or reward points you want to use or would like to estimate your delivery cost.
Coupon Code
Promotion By Coupon
Apply
Total
$ 45
Check Out

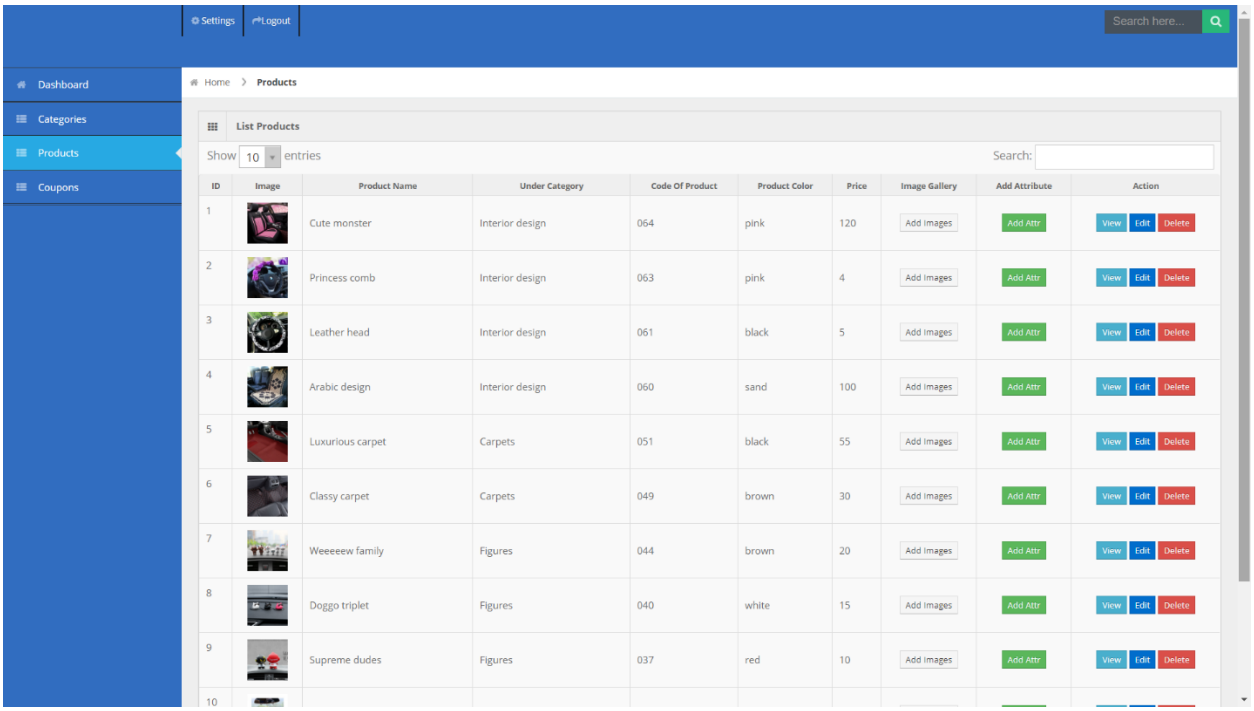

SYARA
Home
Shop
Cart
My Account
Logout
Billing To
Shipping To
yaser
Amman Al Kursi - Nabaha st.
Amman
Amman
Jordan
1118
0790809202
Shipping Address same as Billing Address
CheckOut
SYARA
CARS ENJOYMENT MADE EASY.

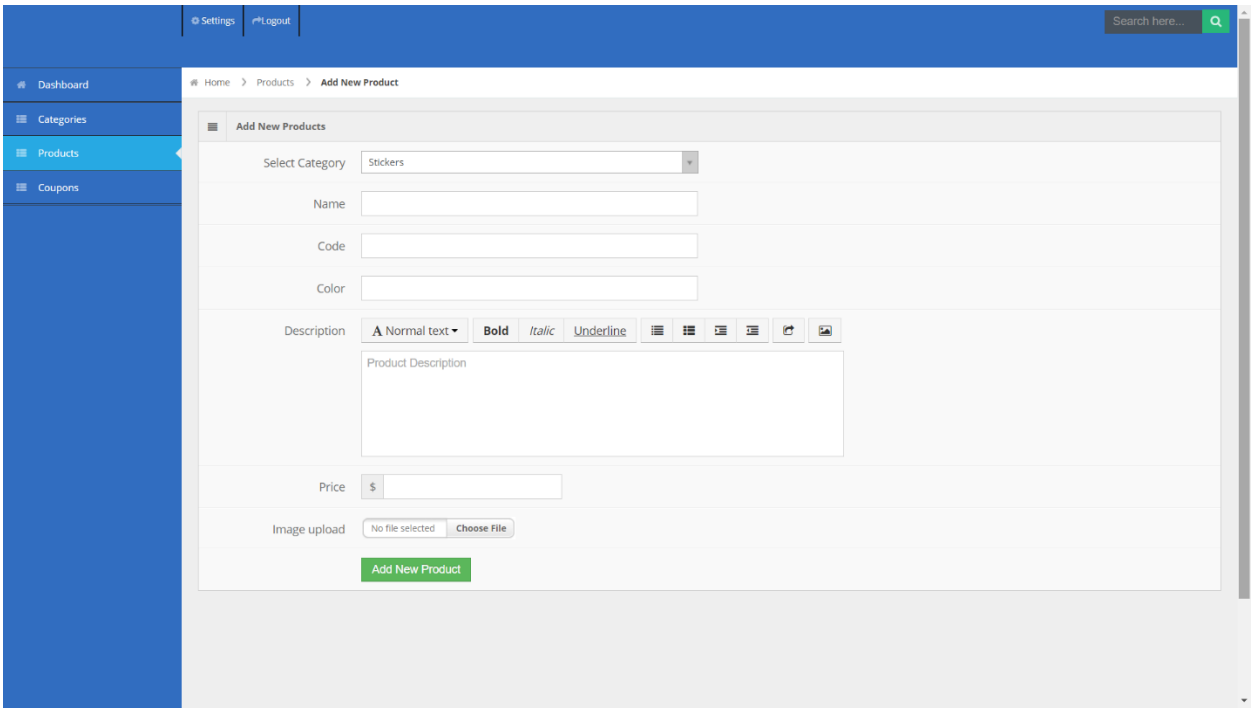

SYARA
Home
Shop
Cart
My Account
Logout
YOUR ORDER HAS BEEN PLACED
Thanks for your Order that use Options on Cash On Delivery
We will contact you by Your Email (yaser@gmail.com) or Your Phone Number (0790809202)
SYARA
CARS ENJOYMENT MADE EASY.
ABOUT US
CONTACT US
POLICIES
ABOUT SHOPPER
Your email address
Get the most recent updates from our site and be updated your self.
Syara © 2020 . All rights reserved - Yaser Saleh


admin@admin.com
Lost password?
Login


Settings
Logout
Search here...
Home
Dashboard
Categories
Products
Coupons
Welcome Admin,here you can modify, create and update products, categories as well as coupons.


Settings
Logout
Search here...
Home
Categories
Dashboard
Categories
Products
Coupons
List Categories
Show 10 entries
Search:
Category Name
Parent Category
Created At
Status
Action
Carpets
2 days ago
Enable
Edit
Delete
Figures
2 days ago
Enable
Edit
Delete
Full size stickers
Stickers
2 days ago
Enable
Edit
Delete
Glass keychain
keychain
2 days ago
Enable
Edit
Delete
Interior design
2 days ago
Enable
Edit
Delete
keychain
2 days ago
Enable
Edit
Delete
Metal keychain
keychain
2 days ago
Enable
Edit
Delete
Mirror accessories
2 days ago
Enable
Edit
Delete
Mobile holder
2 days ago
Enable
Edit
Delete
Partial stickers
Stickers
2 days ago
Enable
Edit
Delete
First
Previous
1
2
Next
Last


Settings
Logout
Search here...
Dashboard
Categories
Products
Coupons
Home
Products
List Products
Show 10 entries
Search:
ID
Image
Product Name
Under Category
Code Of Product
Product Color
Price
Image Gallery
Add Attribute
Action
1 Cute monster Interior design 064 pink 120 Add Images Add Attr View Edit Delete
2 Princess comb Interior design 063 pink 4 Add Images Add Attr View Edit Delete
3 Leather head Interior design 061 black 5 Add Images Add Attr View Edit Delete
4 Arabic design Interior design 060 sand 100 Add Images Add Attr View Edit Delete
5 Luxurious carpet Carpets 051 black 55 Add Images Add Attr View Edit Delete
6 Classy carpet Carpets 049 brown 30 Add Images Add Attr View Edit Delete
7 Weeeeew family Figures 044 brown 20 Add Images Add Attr View Edit Delete
8 Doggo triplet Figures 040 white 15 Add Images Add Attr View Edit Delete
9 Supreme dudes Figures 037 red 10 Add Images Add Attr View Edit Delete


Settings
Logout
Search here...
Dashboard
Categories
Products
Coupons
Home
Products
Add New Product
Add New Products
Select Category
Stickers
Name
Code
Color
Description
Normal text
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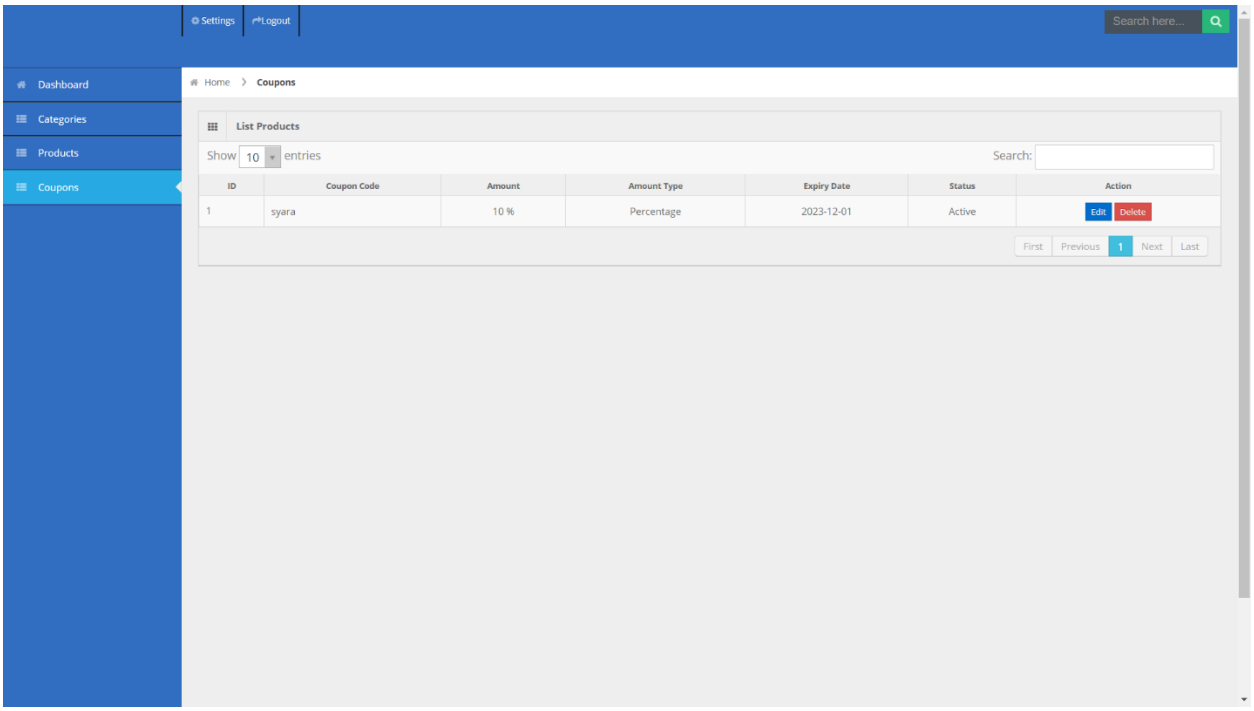
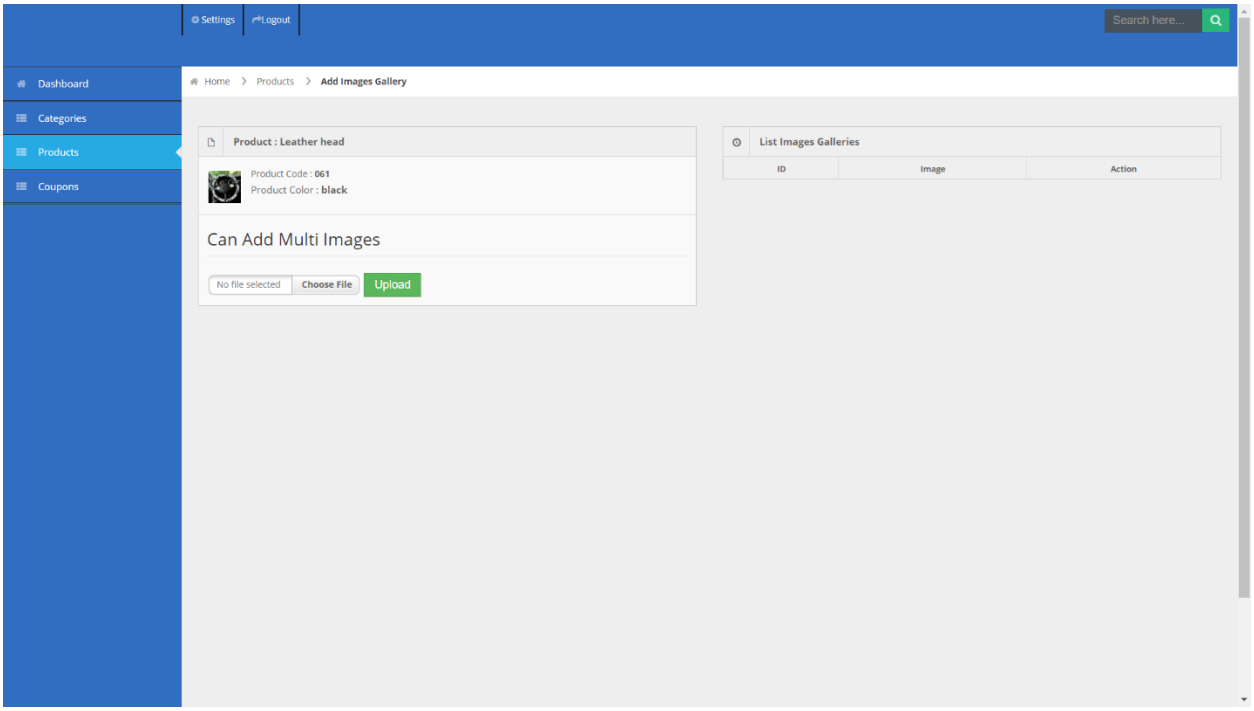
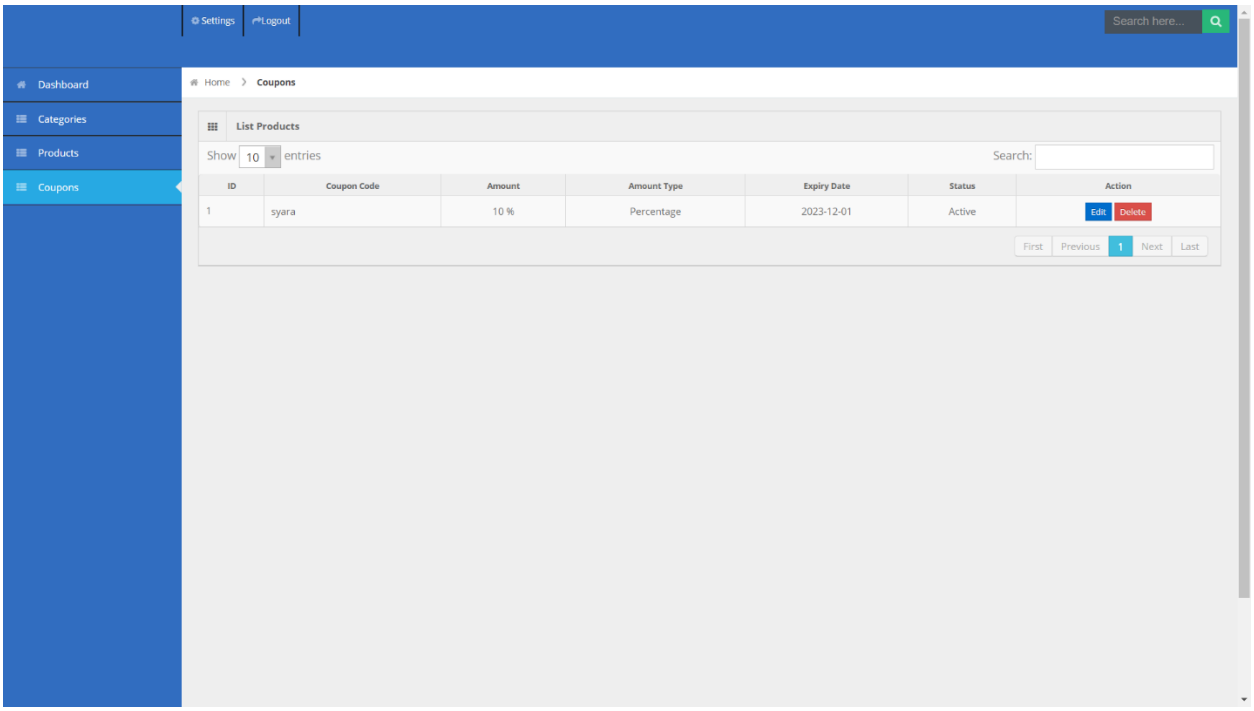
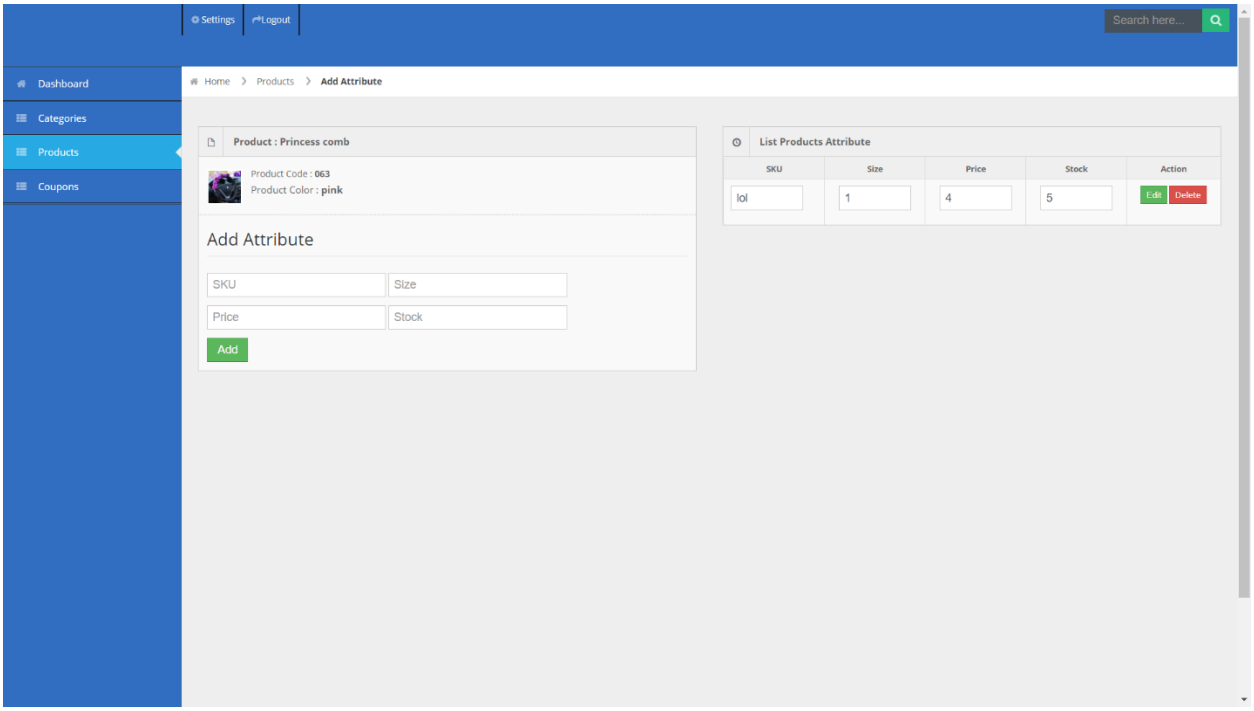
Price
$
Image upload
No file selected
Choose File
Add New Product


Settings
Logout
Search here...
Dashboard
Categories
Products
Coupons
Home
Coupons
List Products
Show 10 entries
Search:
ID
Coupon Code
Amount
Amount Type
Expiry Date
Status
Action
1
syara
10 %
Percentage
2023-12-01
Active
Edit
Delete
First
Previous
1
Next
Last


Settings
Logout
Search here...
Dashboard
Categories
Products
Coupons
Home
Products
Add Images Gallery
Product : Leather head
Product Code : 061
Product Color : black
Can Add Multi Images
No file selected
Choose File
Upload
List Images Galleries
ID
Image
Action


Settings
Logout
Search here...
Dashboard
Categories
Products
Coupons
Home
Coupons
List Products
Show 10 entries
Search:
ID
Coupon Code
Amount
Amount Type
Expiry Date
Status
Action
1
syara
10 %
Percentage
2023-12-01
Active
Edit
Delete
First
Previous
1
Next
Last


Settings
Logout
Search here...
Dashboard
Categories
Products
Coupons
Home
Products
Add Attribute
Product : Princess comb
Product Code : 063
Product Color : pink
Add Attribute
SKU
Size
Price
Stock
Add
List Products Attribute
SKU
Size
Price
Stock
Action
lol
1
4
5
Edit
Delete