Java Institute for Advanced Technology
Department of Examinations

COURSE(S) – (LEADING TO)	HIGHER DIPLOMA IN SOFTWARE ENGINEERING
SUBMISSION DATE	
UNIT NAME	WEB PROGRAMMING II
UNIT ID	HF2L 04
EXAMINATION ID	HF2L 04/EX/01

NAME	: M.R.P.N.THARUKSHA RAJAPAKSHA (BLOCK CAPITALS)
BCU STUDENT ID	: 22178965
NIC NO	: 200019401866
SCN NO	: 207977608

Java Institute for Advanced Technology
Sri Lanka

Acknowledgment

First and foremost, I would like to publicly thank Mr. Achintha Chamara, my lecturer, and adviser for the Web Programming II subject, for his unwavering encouragement, inspiration, and guidance in helping me finish this project.

I am extremely grateful to my parent for their love, care, and sacrifices they made to build a better future for me. And the encouragement they have given me to complete this project.

Finally, I want to express my gratitude to my friends, the management of Java Institute, and everyone who supports me to complete this project.

Abstract

This Project Document contains the problem I addressed to bring a small local camera item-selling shop to the island-wide market through a web application called NDCamera. And all web application requirements of the NDCamera, Development processes, User interfaces, Implementation Processes, Technologies that have been used to develop the application, Final result, Future Development Ideas, Conclusions, and What I learned from doing the project are also contained.

Contents

1. Introduction:

1.1 About

This is an e-commerce web application developed for a small local store that sells camera items.

1.2 Problem Statement

Because of the economic crisis in Sri Lanka, customers have difficulty visiting the shops to get their needs. Then the local shops lose many customers. So I needed to open a local shop in the island-wide online customer base to increase sales and to give customers web applications to easily order products from the comfort of their homes and don't waste their fuel as well.

1.3 Solution

The solution was to build a web application as the ideal way to tackle this issue. The NDCamera web application was developed as a result of this.

2. Specifications:

2.1 Functional Requirements

- Sign Up
- Sign In
- Sign Out
- Profile
- Home
- Shop (Advanced Search)
- Product View
- Shopping Cart
- Wish List
- Checkout
- Payment Gateway
- Orders
- Blog
- Contact
- User Management (Admin)
- Brand Management (Admin)
- Product Management (Admin)
- Order Management (Admin)
- Business Settings (Admin)

2.2 Non-Functional Requirements

- User Friendly
- The application must work faster

2.3 Constraints

- Time limitation
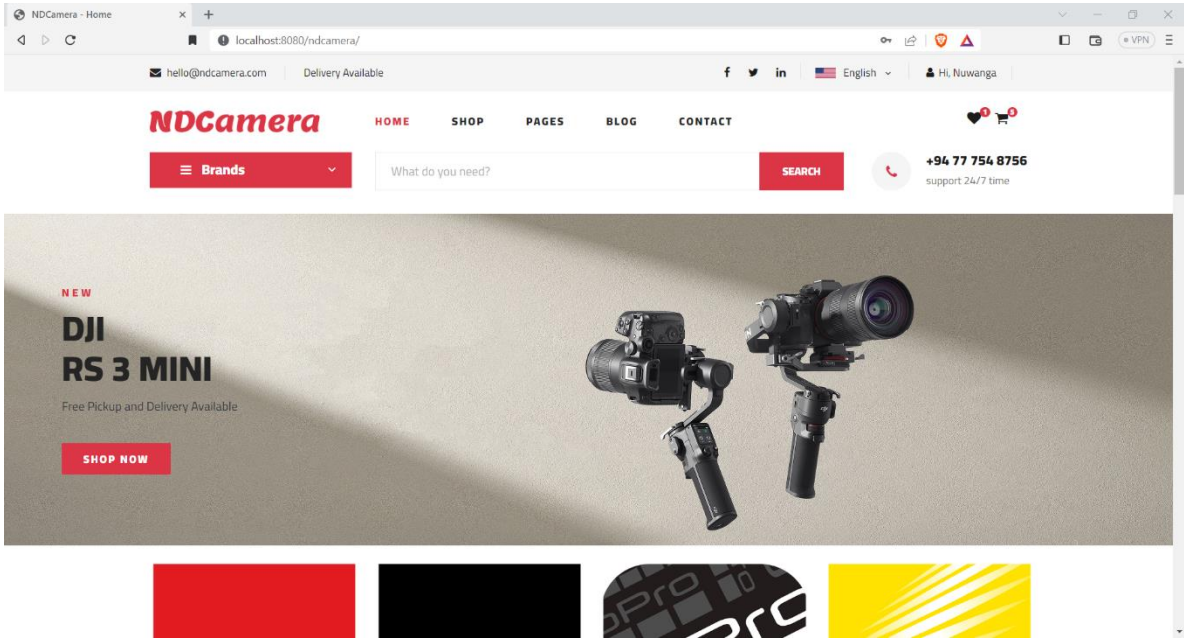- Budget limitation to make the google map direction API connect

3. Design:

3.1 Architecture

4. Implementation:

4.1 GUIs

			GRAPHICAL USER UIS HF2L 04/EX/01 FORM NO: HF2L 04/EX/01/FRM-01

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 1

3. Name of relevant use case :

4. Title of the GUI : Index

01. Brief Description of the GUI:

This is the first UI visible to anyone who accesses this Web application. This UI is the main UI of this Web application. This UI provides access to other UIs.

	GRAPHICAL USER UIS
	HF2L 04/EX/01
	FORM NO: HF2L 04/EX/01/FRM-02

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 2

3. Name of relevant use case :

4. Title of the GUI : Header
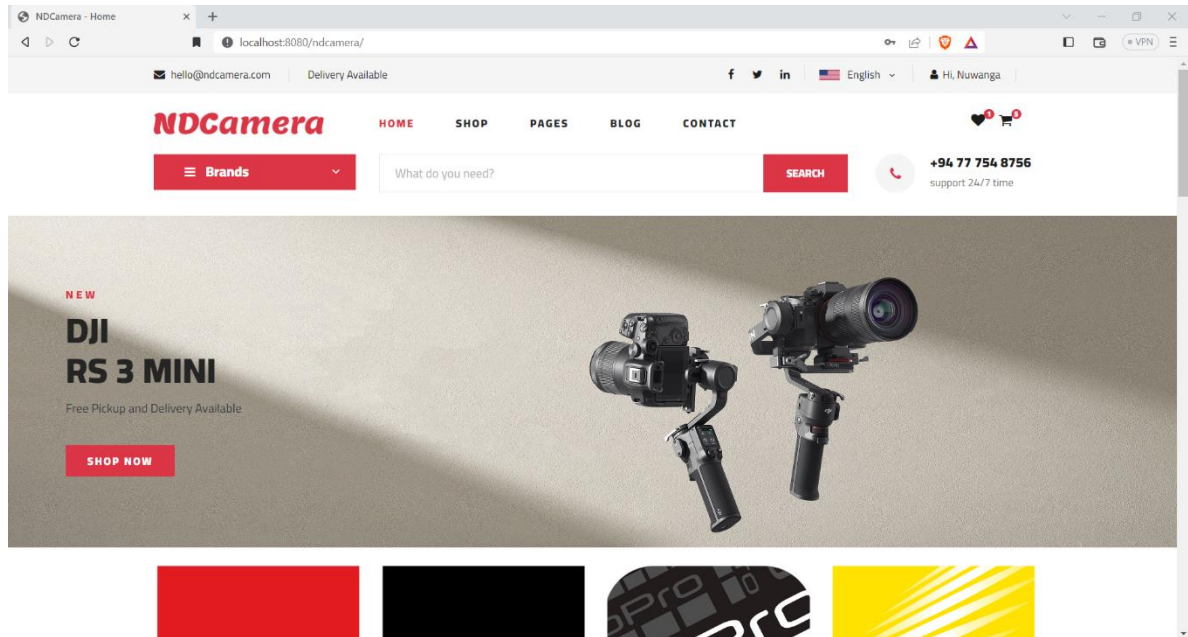
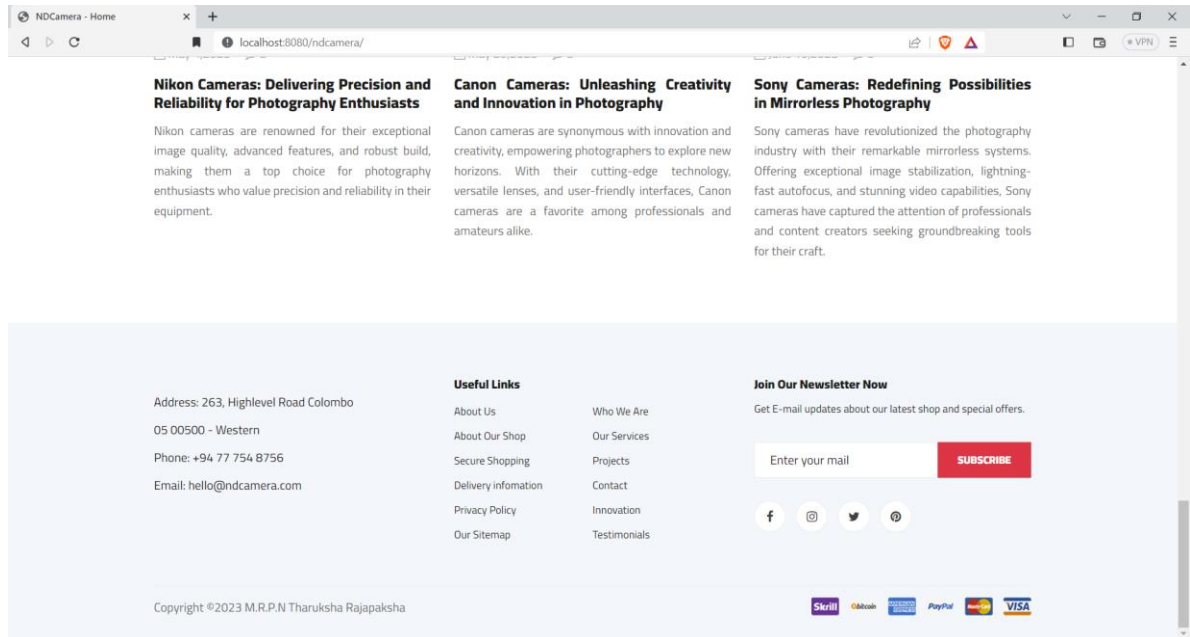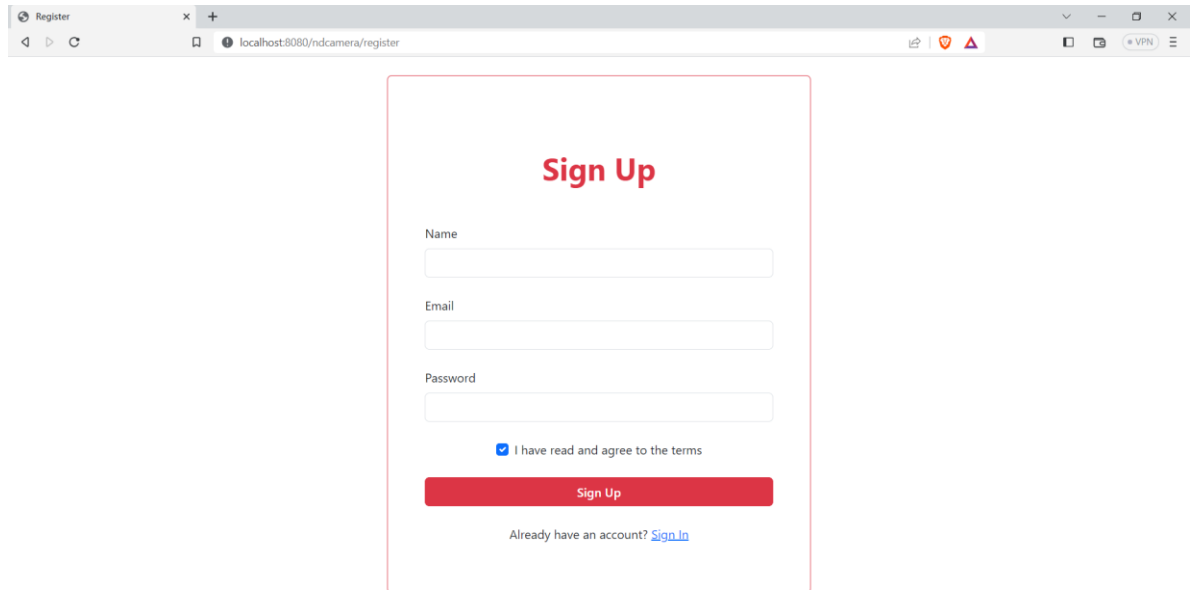**01. Brief Description of the GUI:**

The header of this web application displays some of the details of this web application and provides some links to access some of the other UIs of this web application.

		GRAPHICAL USER UIS
		HF2L 04/EX/01
		FORM NO: HF2L 04/EX/01/FRM-02

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 2

3. Name of relevant use case :

4. Title of the GUI : Footer

01. Brief Description of the GUI:

The footer of this web application displays some of the details of this web application and provide some links to access some of the other UIs of this web application.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 3

3. Name of relevant use case :

4. Title of the GUI : User Sign Up
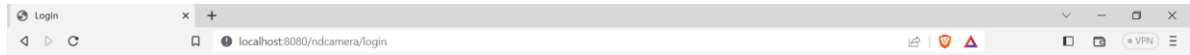

01. Brief Description of the GUI:

This UI is used to register a new user. The "Sign Up" button is used to verify and register the details entered by a user. The "Sign In" link is used to Sign In.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 4

3. Name of relevant use case :

4. Title of the GUI : User & Admin Sign In
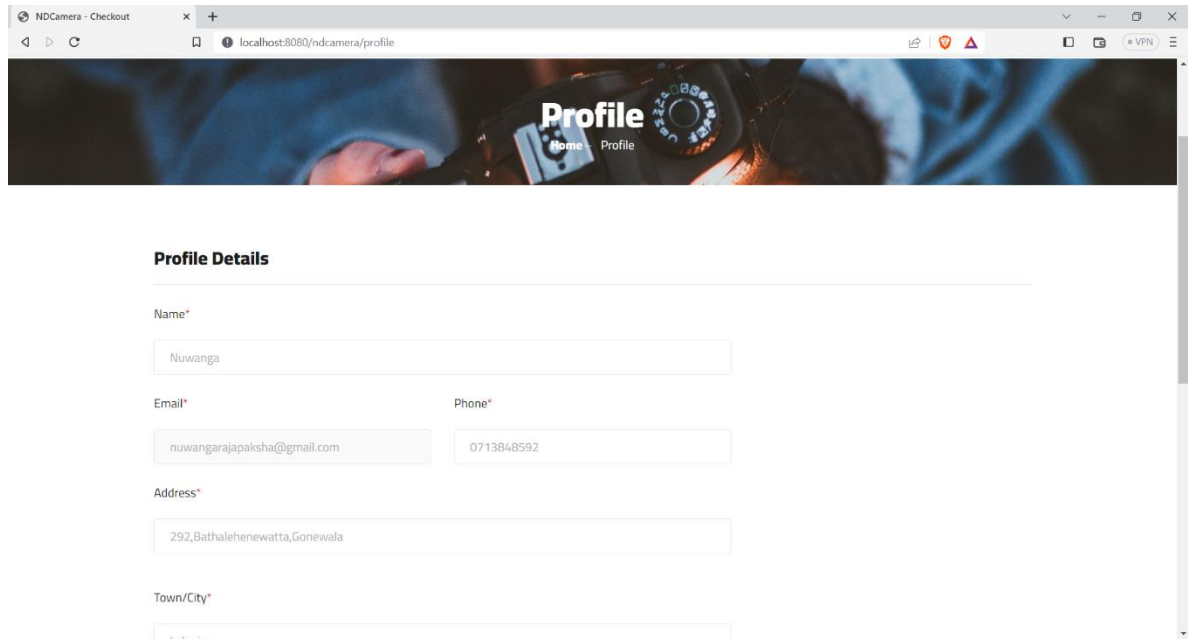

01. Brief Description of the GUI:

This UI is used users & admins to Sign In to the web application. The "Sign In" button is used to verify the email and the password entered by the user. The "Sign Up" link is used to register a new user.

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1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 6

3. Name of relevant use case :

4. Title of the GUI : User Profile

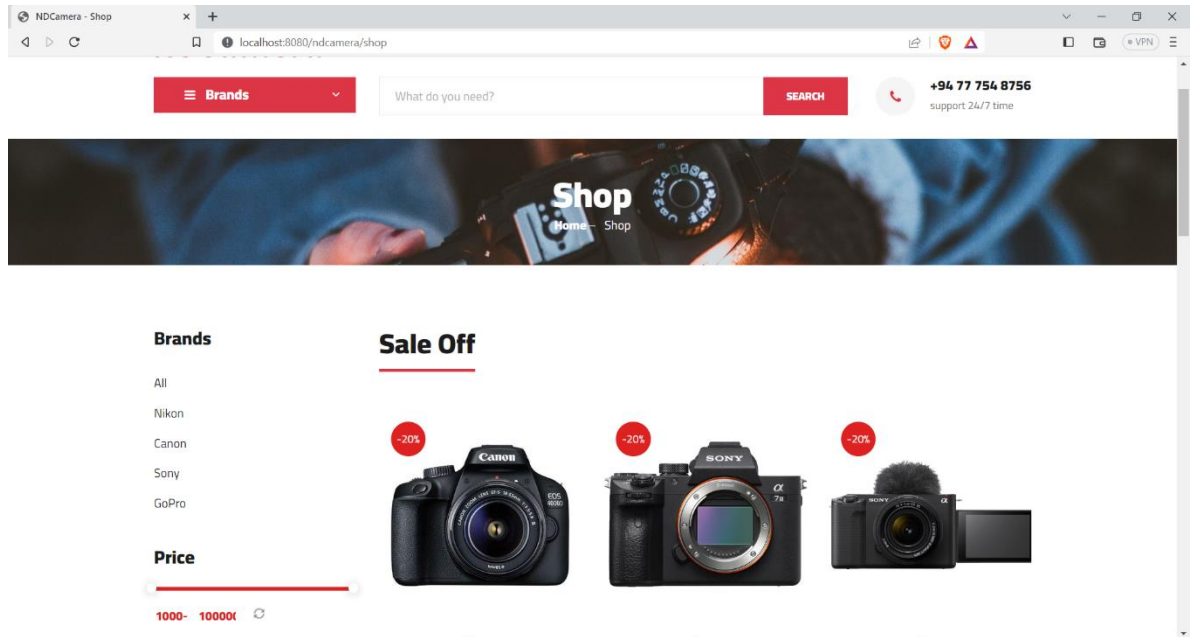**01. Brief Description of the GUI:**

This UI is used to display and update the profile details of a user. The "UPDATE" button is used to verify and update the profile details. The "CHANGE PASSWORD" button is used to verify and update the password. And Deactivate link is used to deactivate the account.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 7

3. Name of relevant use case :
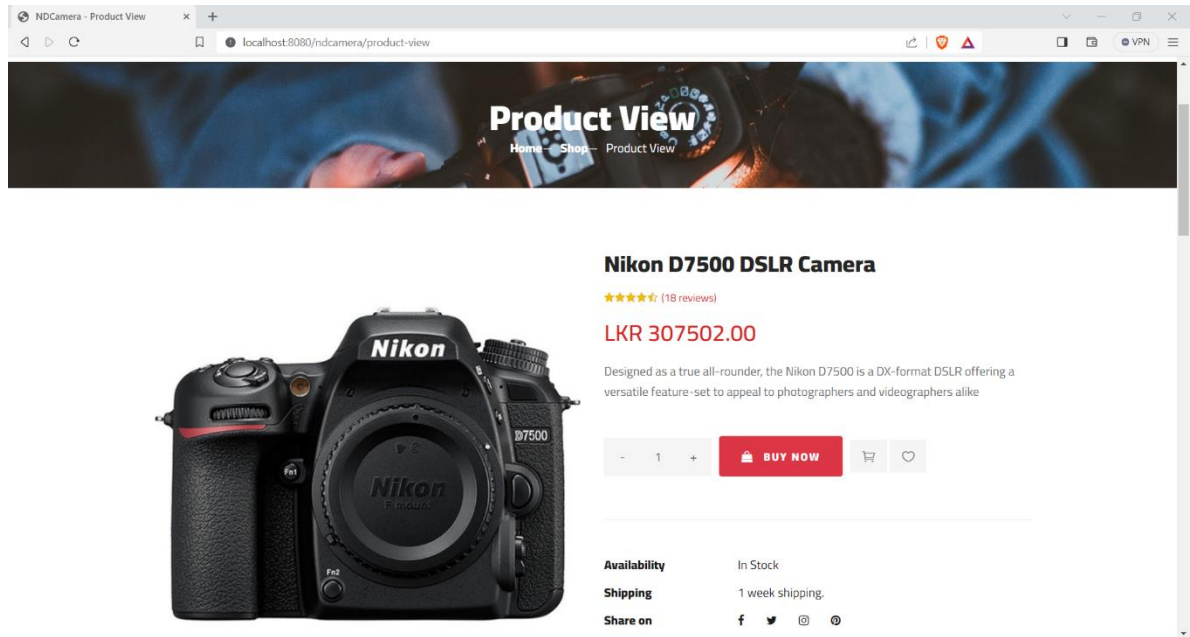
4. Title of the GUI : Shop

01. Brief Description of the GUI:

   This UI is used to search/select products. And users can buy, add to cart, and add to wish list products here.

	GRAPHICAL USER UIS
JAVA INSTITUTE for Advanced Technology	HF2L 04/EX/01
	FORM NO: HF2L 04/EX/01/FRM-01

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 10

3. Name of relevant use case :
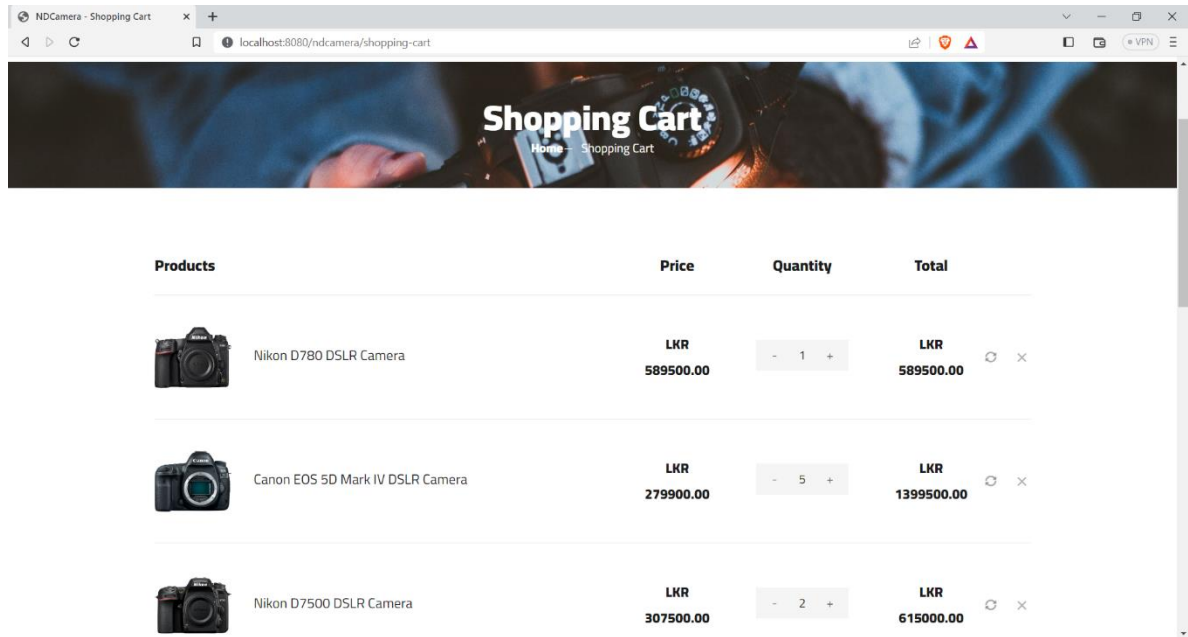
4. Title of the GUI : Product View

01. Brief Description of the GUI:

This UI is used to show the details of a product. And users can buy, add to cart, and add to wish list products here.

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1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 8

3. Name of relevant use case :

4. Title of the GUI : Shopping Cart
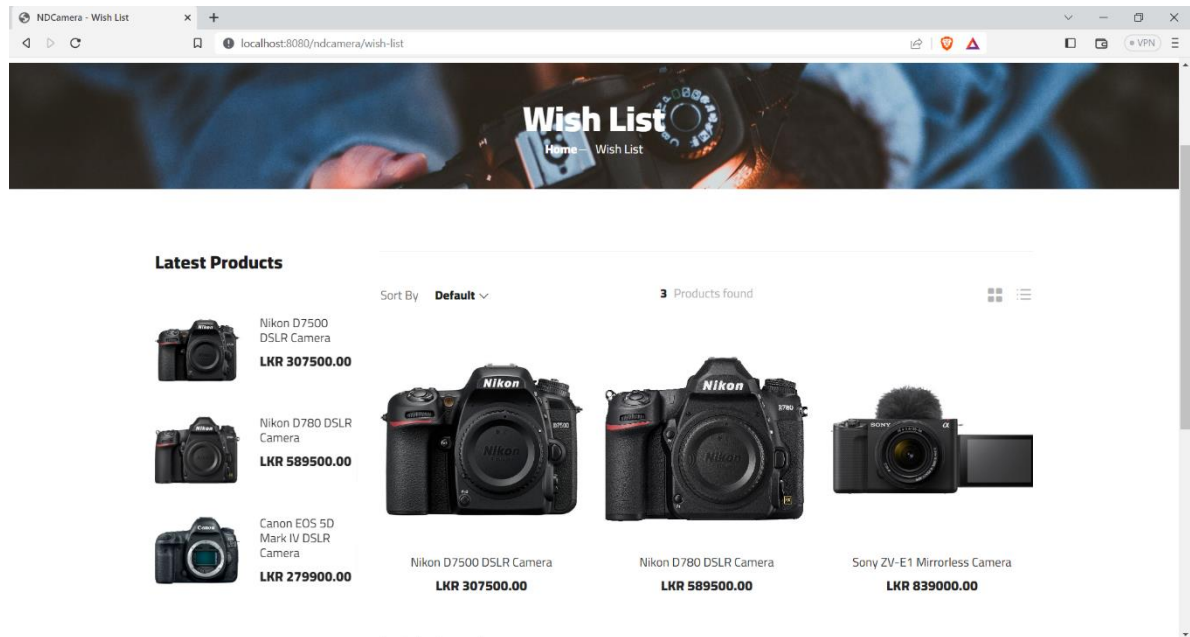

01. Brief Description of the GUI:

This UI is the shopping cart of this web application. Users can update products quantity and remove cart items here. The "CONTINUE SHOPPING" button is used to redirect to shop. The "PROCEED TO CHECKOUT" button is used to checkout all products in the cart.

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1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 9

3. Name of relevant use case :

4. Title of the GUI : Wish List

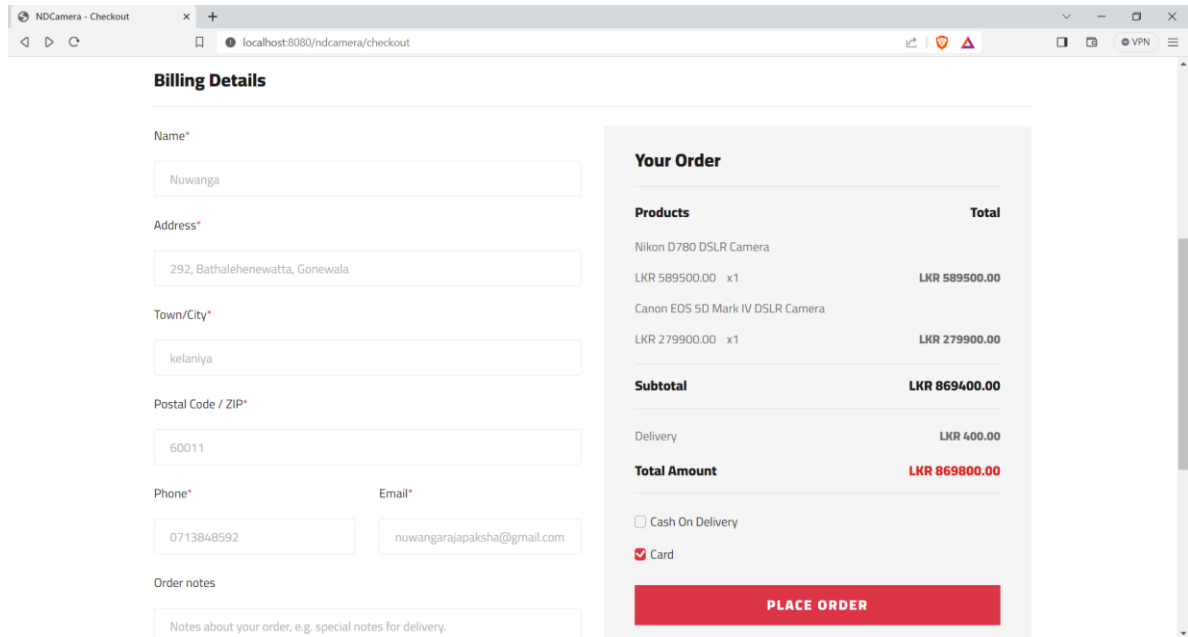**01. Brief Description of the GUI:**

This UI is the wish list of this web application. Users can buy, add to cart, and remove from wish list products here.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 11

3. Name of relevant use case :

4. Title of the GUI : Checkout

01. Brief Description of the GUI:

This UI is used to place order products. The "PLACE ORDER" button is used to verify and place order.

			GRAPHICAL USER UIS
JAVA INSTITUTE for Advanced Technology	SGS	SWISS CERTIFICATION	HF2L 04/EX/01 FORM NO: HF2L 04/EX/01/FRM-01

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 11

3. Name of relevant use case :

4. Title of the GUI : Checkout Complete
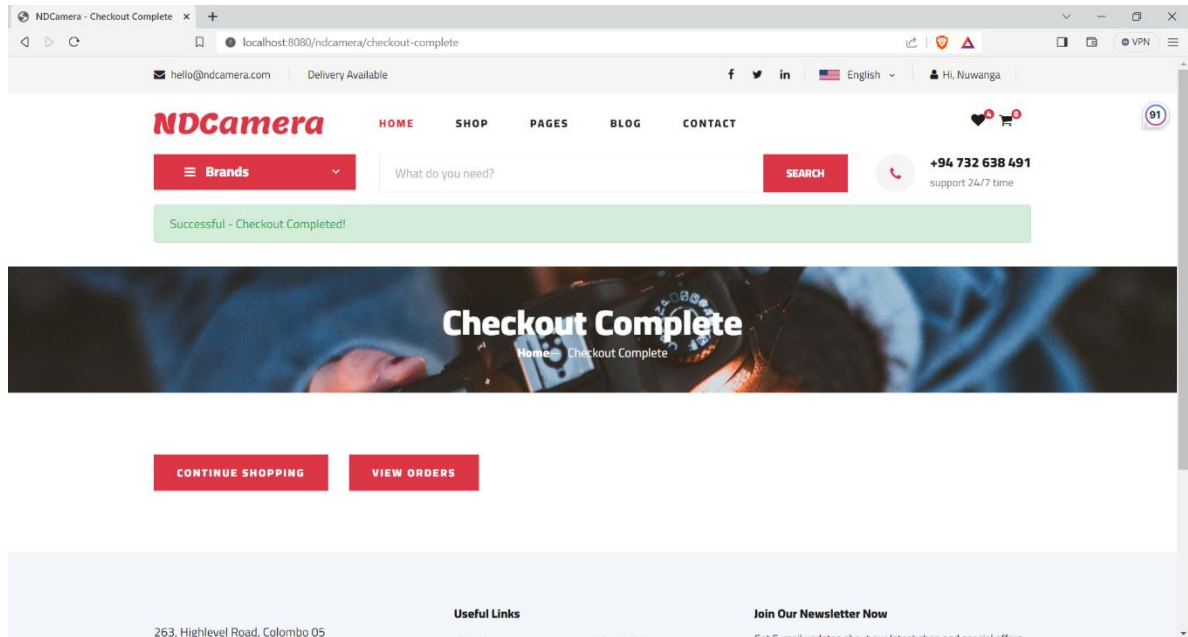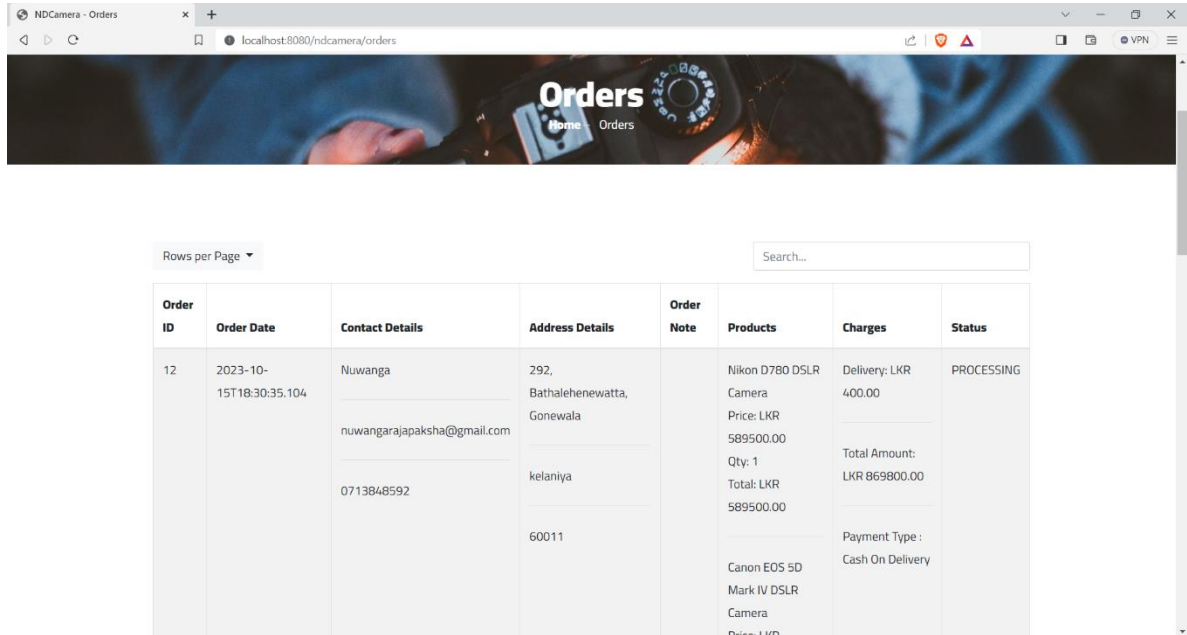

01. Brief Description of the GUI:

When the placer order is completed redirect to this UI. The "CONTINUE SHOPPING" button is used to redirect to shop. The "VIEW ORDERS" button is used to redirect to orders.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 12

3. Name of relevant use case :
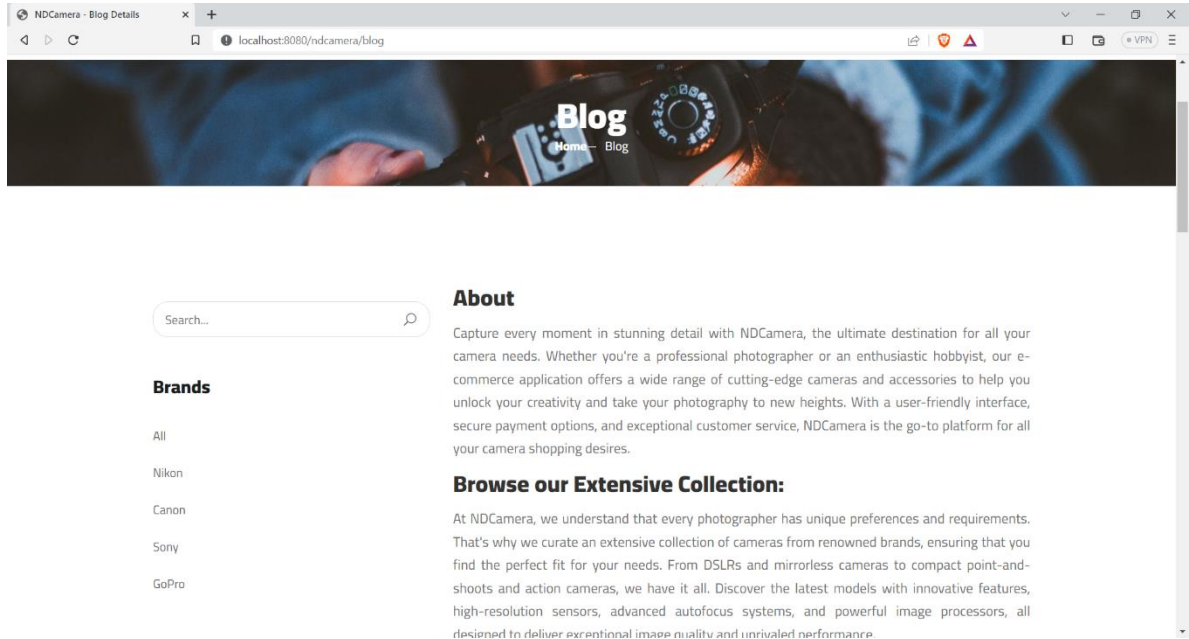
4. Title of the GUI : Orders

01. Brief Description of the GUI:

This UI is used to show the user orders.

		GRAPHICAL USER UIS
JAVA INSTITUTE for Advanced Technology	SGS ISO 9001 · SWISS CERTIFICATION	HF2L 04/EX/01 FORM NO: HF2L 04/EX/01/FRM-01

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 13

3. Name of relevant use case :

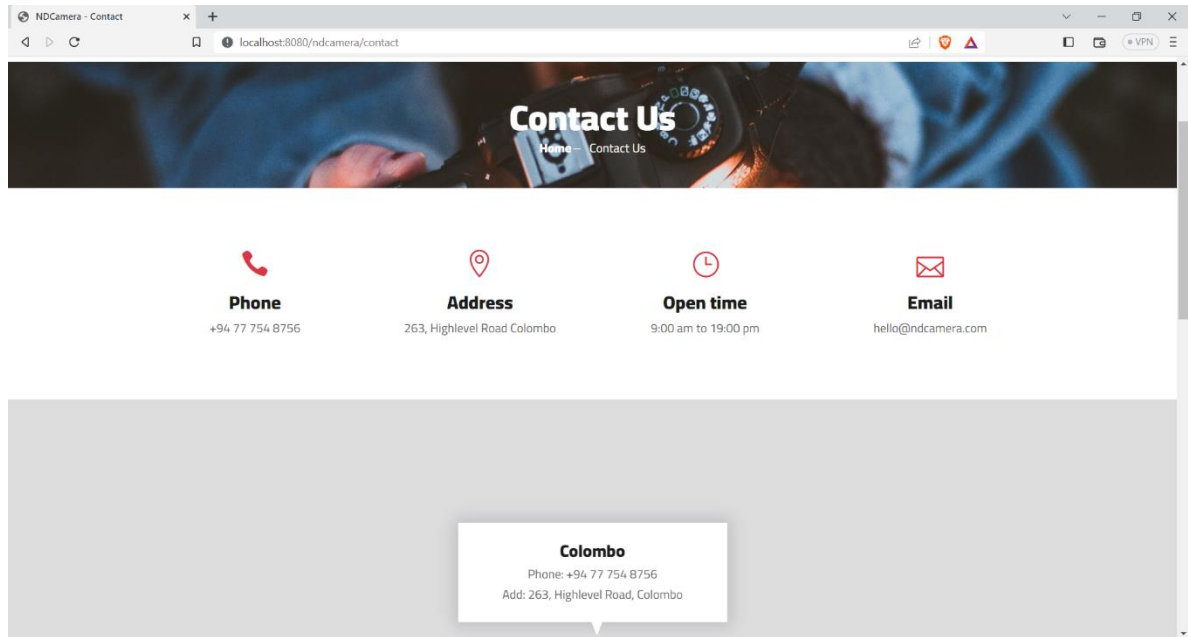4. Title of the GUI : Blog

01. Brief Description of the GUI:

This UI is used to show some details of the web application.

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1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 14

3. Name of relevant use case :
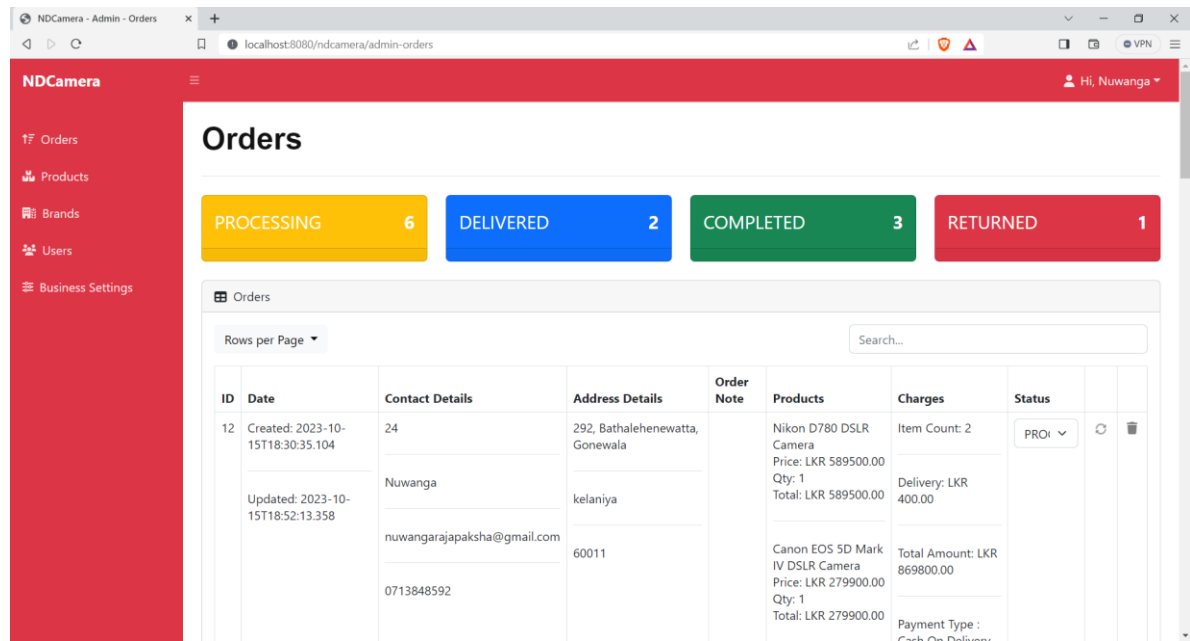
4. Title of the GUI : Contact

01. Brief Description of the GUI:

This UI is used to show contact details of the company.

		GRAPHICAL USER UIS
		HF2L 04/EX/01
		FORM NO: HF2L 04/EX/01/FRM-01

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 16

3. Name of relevant use case :

4. Title of the GUI : Admin Panel
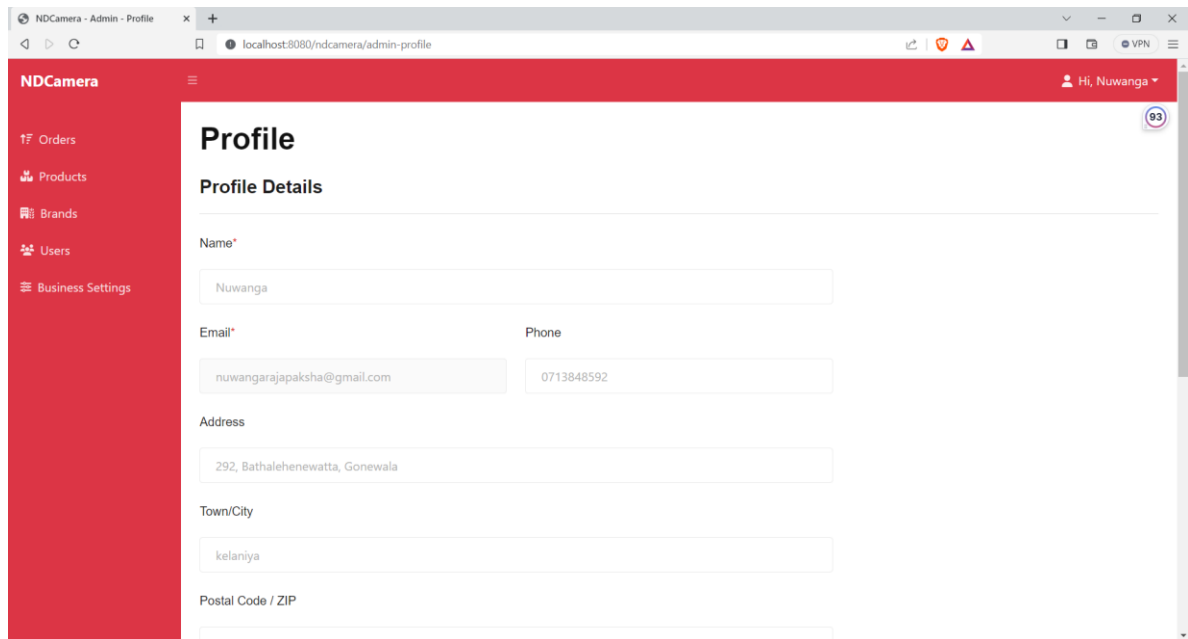

01. Brief Description of the GUI:

This UI is used to control all the activities of this web application. Only the admins of this web application can access this UI using their username and a password.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 17

3. Name of relevant use case :

4. Title of the GUI : Admin Profile
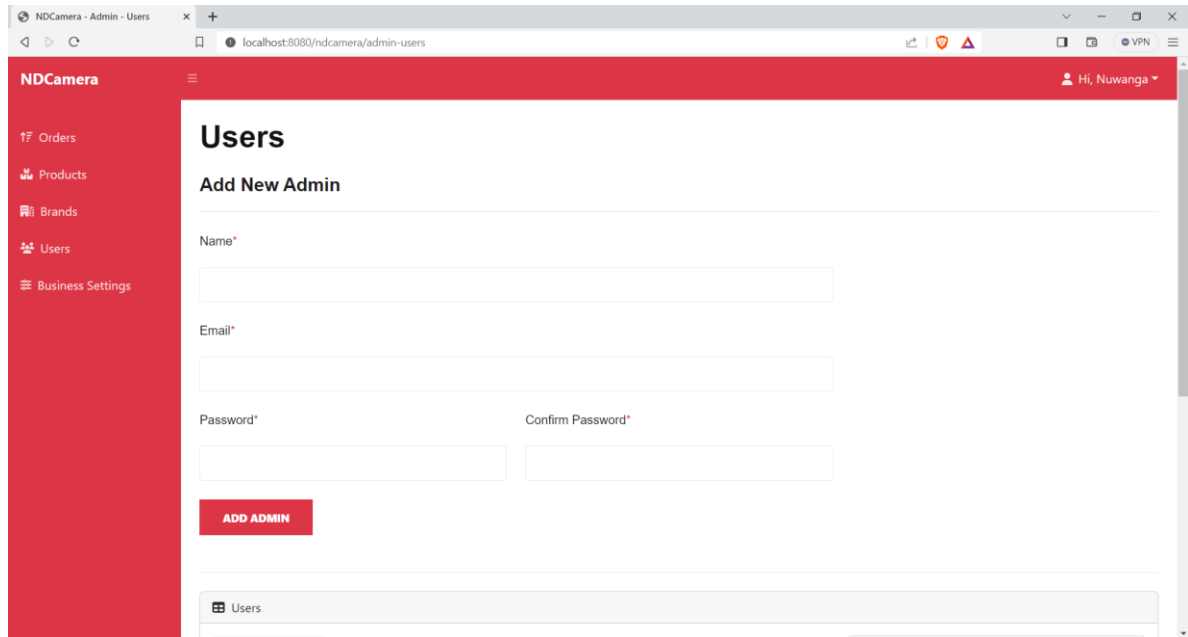

01. Brief Description of the GUI:

This UI is used to display and update the profile details of an admin. The "UPDATE" button is used to verify and update the profile details. The "CHANGE PASSWORD" button is used to verify and update the password. And Deactivate link is used to deactivate the account.

	GRAPHICAL USER UIS HF2L 04/EX/01 FORM NO: HF2L 04/EX/01/FRM-01

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 19

3. Name of relevant use case :

4. Title of the GUI : Users

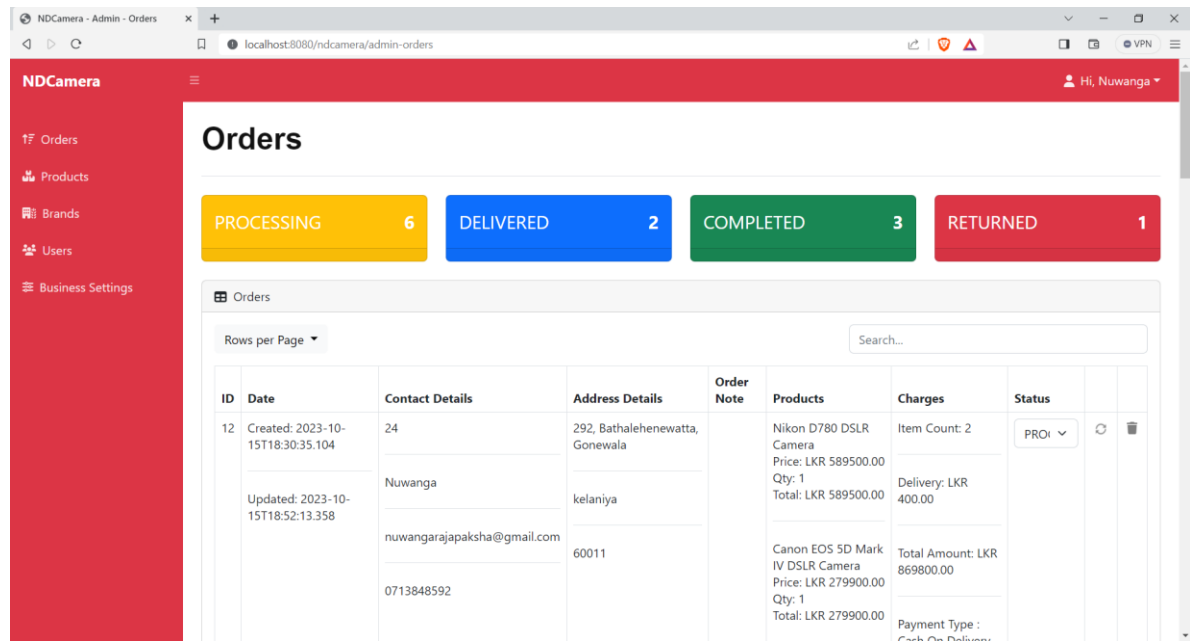**01. Brief Description of the GUI:**

This UI is used to add new admins and manage the users of the web application. The "ADD ADMIN" button is used to verify and add a new admin. And the Users table can use to update and remove the users.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 21

3. Name of relevant use case :

4. Title of the GUI : Orders
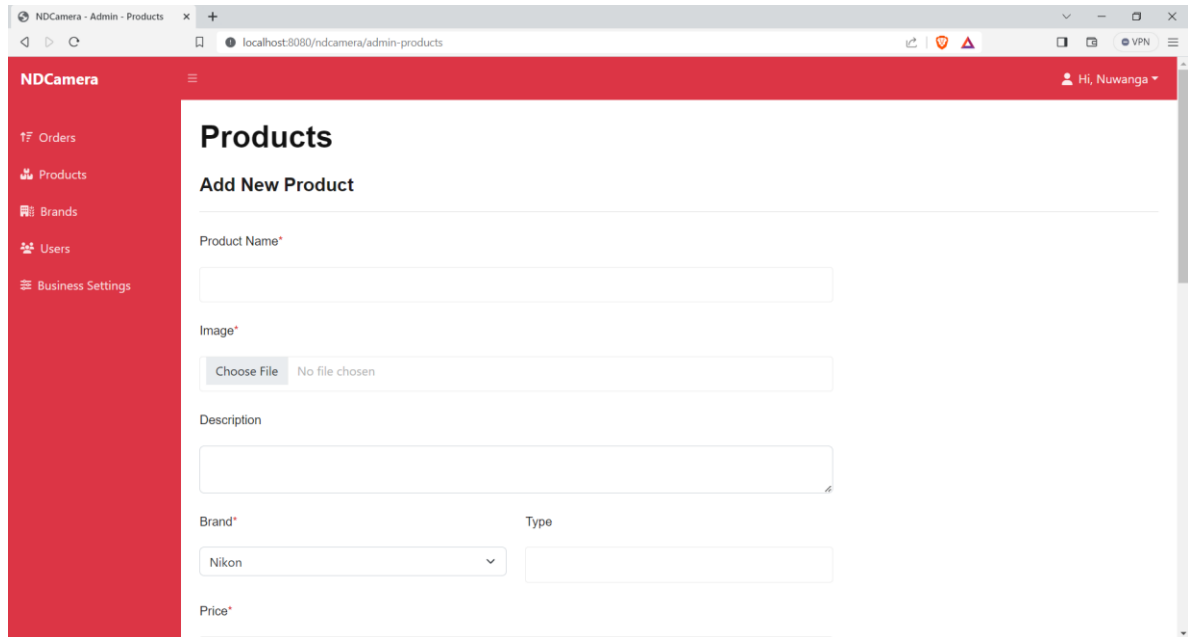

01. Brief Description of the GUI:

This UI is used to manage the orders. The Orders table can use to update and remove the orders.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 22

3. Name of relevant use case :

4. Title of the GUI : Products
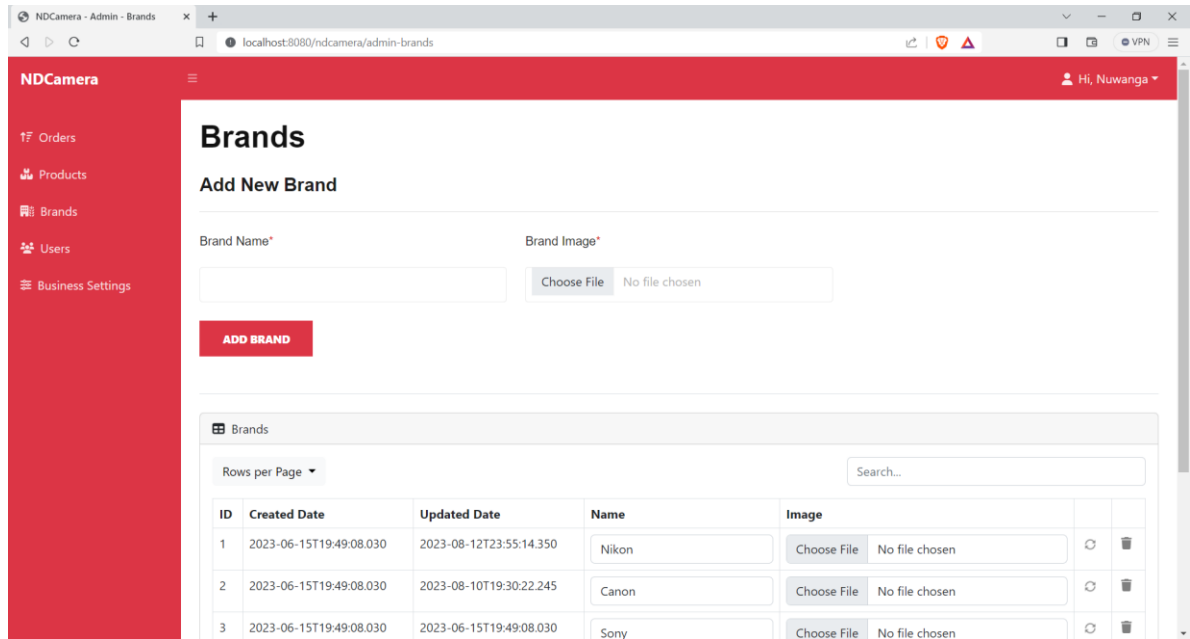

01. Brief Description of the GUI:

This UI is used to manage the products. The "ADD PRODUCT" button is used to verify and add a new product. And the Products table can use to update and remove the products.

	GRAPHICAL USER UIS
JAVA INSTITUTE for Advanced Technology	**GRAPHICAL USER UIS** HF2L 04/EX/01 FORM NO: HF2L 04/EX/01/FRM-01

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 23

3. Name of relevant use case :

4. Title of the GUI : Brands

01. Brief Description of the GUI:

This UI is used to manage the brands. The "ADD BRAND" button is used to verify and add a new brand. And the Products table can use to update and remove the brands.

1. Candidate Name : M.R.P.N.Tharuksha Rajapaksha	2. GUI No : 24

3. Name of relevant use case :

4. Title of the GUI : Business Settings
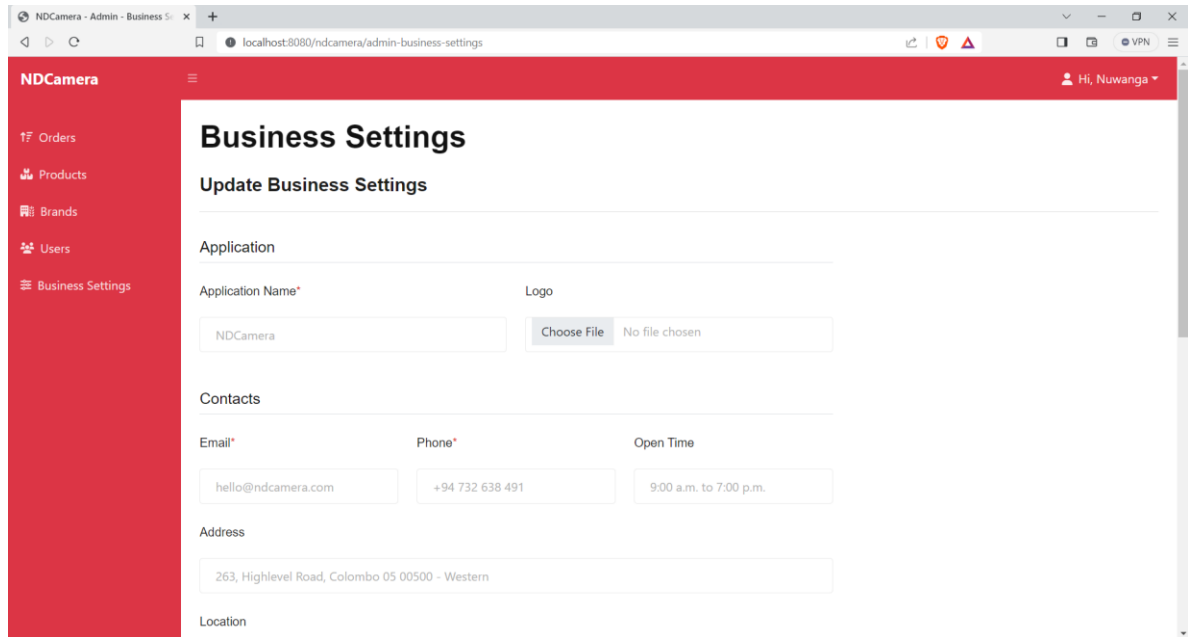
01. Brief Description of the GUI:

This UI is used to change the business settings of the web application. The "UPDATE" button is used to verify and change the business settings.

5. Results:

Customers can sign in to the app with an email, customers can find products and add them to their cart or wish list and checkout. Users can check their profile details and update them. And admins can manage the users, brands, products, orders, and business settings.

6. Future Works:

- Using google maps API for tracking orders.
- Product Reviews
- Notifications
- FAQ Section
- Chat Bot
- AdSense

7. Conclusions:

I can come to the conclusion that my application succeeded in resolving the problem of bringing local shops into the island-wide market and helping customers to save fuel by ordering camera items from home.

8. Reflection on Learning:

Learned concepts of web development, how to use object-oriented programming concepts with web applications, and how to use Java EE with web applications.

9. References:

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