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Online Food Ordering System

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An Undergraduate Internship on Online Food Ordering System

By

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Summer, 2022

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September 14, 2022

Dissertation submitted in partial fulfillment for the degree of
Bachelor of Science in Computer Science

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

This is to confirm that Hasibul Haque (1821876) has completed the report ONLINE FOOD ORDERING SYSTEM, which was submitted as part of the requirements for the degree of Computer Science and Engineering from Independent University, Bangladesh (IUB). It was completed under Sanzar Adnan Alam Sir's supervision and assistance (Supervisor). I also guarantee that everything in my work, which I learned during my internship, is original. All information sources used in this project and report have been appropriately acknowledged.

Hasibul Haque

14 Sep, 2022

Signature Date

Hasibul Haque

Name

Acknowledgement

First and foremost, I desire to express my deepest sense of gratitude to Almighty Allah, it is because of His mercy and blessing that I have come so far. It has been a great privilege to work for Pondit Limited as an Intern. I have received so much support and encouragement from the individuals of Pondit Limited who have years of experience in Software Development.

I want to thank the Faculty of Computer Science and Engineering for including internship credit in the graduate program's curriculum and allowing me to sample the flavor of industry-oriented duties and the sector of work that interests me. I want to express my gratitude to my supervisor, Sanzar Adnan Alam Sir, Lecturer in the Department of Computer Science and Engineering at Independent University Bangladesh. With his constant direction, invaluable instructions, intriguing suggestions, and insightful advice, he encouraged and directed me throughout this internship and preparing this report.

From the depths of my being, I am grateful to my external supervisor Zunayed Al Habib, Full Stack Software Developer, Pondit Limited, for his kind support, guidance, constructive supervision, instructions, and advice and for motivating me to complete my internship at Pondit Limited smoothly.

My gratitude also extends to all other employees of Pondit Limited who helped me learn so much in my own skill development process and made me fit right in the environment.

Lastly, I proudly acknowledge the great sacrifices, good wishes, moral support, fruitful advice, inspirations and encouragements from my family members, relatives and friends.

Hasibul Haque
September, 2022

Letter of Transmittal

Md. Sanzar Adnan Alam Sir, Lecturer,
Department of Computer Science and Engineering,
Independent University, Bangladesh.
Subject: Letter of Submission for Internship Report.

Dear Sir,
This is to inform you that with due honor and respect, I am now submitting my Internship Report as part of my bachelor's degree program in computer science and engineering. Working under your active supervision is a significant achievement. This report is based on my experience and the work I did at Pondit Limited during my internship program. I have three months to work at Pondit Limited under the direction of Md. Zunayed Al Habib, Full Stack Developer, Pondit Limited.

This internship provided me with both academic as well as practical experience. The training has enabled me to build a network in the corporate setting. With the knowledge I gathered throughout my internship, I attempted to make this report as informative as possible. I followed the directions and explained the relevant fields in sufficient depth to write a well-organized internship report. However, I am convinced that this report will meet the needs of my internship program.

I would be grateful if you could accept this report and provide your valuable feedback. If you found this report helpful and informative in acquiring a complete grasp of the situation, it would bring me great joy.

Sincerely Yours, Hasibul Haque
ID- 1821876
Department of Computer Science and Engineering,
Independent University, Bangladesh.

Evaluation Committee



Signature: .....

Name: Sanzar Adnan Alam

Supervisor



Signature: .....

Name: Ajmiri Sabrina Khan

Internal Supervisor / Panel Member



Signature: .....

Name: Zunayed Al Habib

External Supervisor



Signature: .....

Name: Dr. Mahady Hasan

Convener

Abstract

The internship is defined as obtaining practical experience from various organizations, which helps form a connection between theoretical and practical knowledge. It is essential because it is the first time for a student to acquire a keen practical understanding of different organizations.

"A Web-Based System for Online Food Ordering" project focuses on web development and design for the Food Ordering system.

I created a website for the Food Ordering system. My office supervisor gave the plan for the project. And then I gathered data, designed the website, and coded it to build the project.

In this project, I am attempting to make a Food Ordering website for a restaurant where the customer in that area can order the food through the website and get home delivery services from the restaurant or can collect the food from the restaurant. In addition, the website contains a little introduction about the restaurant, and also contains the contact us page.

And there is also an admin panel for the management. The website is built in a manner that the admin can change almost all the things as they wish. Almost all the portion of the website is dynamic so the admin can change easily.

This project has provided me with some invaluable learning opportunities. This initiative has inspired me to pursue further development-related work. I hope that this experience will be beneficial to my future work.

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Chapter 1

Introduction

Internships are frequently tied to a student's academic and career objectives. The internship program is designed to assist students in focusing on their career interests and potential. It allows students to apply their theoretical knowledge in challenging real-world situations. Independent University, Bangladesh's Department of Computer Science & Engineering provides an undergraduate program in "Computer Science and Engineering." The program contains a course called the Internship Program. In that course, we have to do an internship in a respected organization where I will be instructed in workplace standards and become acquainted with the industry. I completed my three-month internship with a company called "Pondit Limited". In the report, I discussed my internship at Pondit Limited, a summary of my work, experiences working for a reputable firm, what I learned, and how it helped me improve and progress professionally.

1.1 Overview/Background of the Work

The major problem as an intern was turning academic principles into real-life experience. Pondit Limited is where I began my Internship as a Developer on June 5, 2022. Pondit Limited gave me the opportunity to work on a web application called Noor-Restaurant. It is a Food Ordering website from where customers can order the food through the website and get home delivery services from the restaurant or can collect the food from the restaurant. The main focuses are that the website should be user-friendly and the admin can update almost all the information. And also all the calculations have to be perfect and security must be kept.

1.2 Objectives

The project objectives are the things we want to accomplish by the end of the project. The main purposes of this application are described below:

- To make it user-friendly so that the customers can order food easily.
- To give proper information about the food with pictures for the customer.
- To make the website dynamic so that the admin can update information easily.
- To build a time-saving system.
- To make a cost-efficient system.

1.3 Scopes

The website is made for the Noor Restaurant which is located at 56 Station Lane, Hornchurch, RM12 6NB, UK. And this website can be accessed by everybody all over the world. But the people in that area only can order the food through the website. And except that, no one can order the food through the website but can get the information about the food and restaurant. Also, anybody can contact the restaurant through the website.

Chapter 2

Literature Review

A literature review is a thorough examination of previous research on a certain issue. A literature review looks at scholarly articles, books, and other materials on a given study topic. A literature review, in other words, assists the reader in understanding how the current study fits into the greater body of relevant literature. In such circumstances, the approach is usually the first thing to go, followed by components of the work.

There is a lot of work done on food ordering websites. Some of the papers about this topics are:

- Consumer preferences and spending patterns in the Indian fast food industry Prabhavathi, Y.
- Online Food Ordering Program Adithya R. et al., 2017
- Consumer Favorite Study and the Impact of the Online Food App Manju, M.
- Study on Impact of online food delivery app at Restaurant Business special reference for zomato and swiggy] Gupta, M.
- A Look at Exploratory Buying Behavior in the FMCG Industry

2.1 Relationship with Undergraduate Studies

Knowledge and skills gained from undergraduate courses have helped develop the "ONLINE FOOD ORDERING SYSTEM" project. It would have proven more difficult if these courses were not covered before working on this project. Some of the courses are:

- CSE 203- Data Structure: This course taught how to manage and manipulate complex arrays, objects, classes, an array of objects, objects of an array, nested arrays, nested objects, etc. As "ONLINE FOOD ORDERING SYSTEM" involves many complex data structures, the skills gained from this course made handling them much easier.
- CSE 213- Object-Oriented Programming: This course is a deep dive into classes and their objects of programming. It also taught me how to write

modular programs, making codes less repetitive and reusable. It helped design the “ONLINE FOOD ORDERING SYSTEM” code in a modular format. Also, as the application grew bigger, this practice helped avoid writing new modules from scratch by using parts of old modules and adding new functions to them.

- CSE 303- Database Management: This was the first course that taught how to design and plan a project. It covered popular planning and strategy practices such as System Development Life Cycle, Rich Picture, Requirement Analysis, Entity Relationship Diagram, Business Process Model and Notation Diagram, etc. These techniques helped develop the strategy of the “ONLINE FOOD ORDERING SYSTEM.”
- CSE 307 - System Analysis and Design: The tools and procedures for the design and analysis of information systems were introduced in this course. Models and systems Management of projects, Data flow diagrams, decision tables, and decision trees are tools for determining system needs. Systems analysis, life cycle models for system development, Application architecture, user interface design, front-end, and back-end design, database design, software administration, hardware selection, and Information systems case studies. All these lessons helped to land the final project.
- CSE 309- Web Applications and Internet: This is the course where the development of web applications was taught. It covered especially important technologies in demand in the industry, such as HTML, CSS, Bootstrap, JavaScript, PHP, jQuery, and other important things. The tools and technologies learned from this course immensely contributed to the development of “ONLINE FOOD ORDERING SYSTEM,” as it is a web application built with web technologies and has a backend server that had to be deployed to the server well.

2.2 Related works

There are numerous similar web applications or websites on the internet. The following are a few of them:

- KFC
- Herfy
- Pizza Hut
- Dominos Pizza
- Pizza Inn and so on.

Chapter 3

Project Management & Financing

3.1 Structure of Work Breakdown

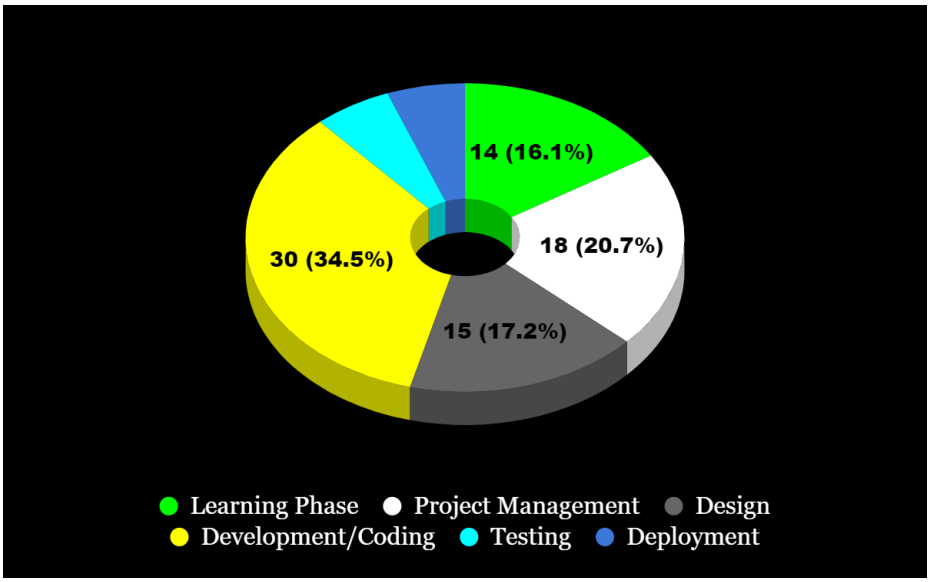
The Work Breakdown Structure is a schematic diagram that illustrates how a project is divided into smaller components. We designed a work breakdown structure (WBS) for our project to ensure that our efforts were coordinated. The work breakdown structure (WBS) visualizes all scopes, dangers, communication points, responsibilities, and expenses, ensuring that critical deliverables are not ignored. It is the most effective tool for team brainstorming and collaboration. In our work breakdown structure, we used a top-down approach.

3.2 Process/Activity wise Time Distribution

The expected time required to complete a project specifies the process-wise time distribution. It assists developers in creating a mental picture of how effectively they must work to fulfill deadlines. The most challenging aspect of designing an application is managing time. So, first and foremost, the content must be fixed, and development must occur in this framework. The process of planning and regulating how much time is spent on various tasks is known as time management. Effective time management allows a person to accomplish more in less time, reduces stress, and encourages professional success. To finish any project, time management is required.

Here, at first, the first 2 weeks are for the learning phase (16.1% of the work). Since the coding language is new for me, so the time is given by the supervisor.

Then, the main functionality starts. We need five days for project planning, five days for data collecting, five days for Risk Analysis, and three days for Cost and scheduling. These four are part of Project management and it considered 23.4% of the total work. After these parts, we need 15 days for designing, which is regarded as 19.5% of the complete work, and 30 days for development/coding, which is considered 39% of the whole project. After development, we need five days (5.7% of the work) for testing the project and five days (5.7% of the work) for the Deployment of the project.



Figures 3.1: Process/Activity wise Time Distribution

3.3 Gantt Chart

A Gantt chart is a method of project management that may be used for many different types of project planning and scheduling. Still, it is especially beneficial for simplifying complex processes. Project management timelines and tasks are translated into a horizontal bar chart that shows start and end dates, dependencies, scheduling, deadlines, how much of each step has been completed, and who is responsible for the work. This is useful when collaborating with a large team and multiple stakeholders to keep work on track when the scope changes. The following activities are carried out using a Gantt chart-

- Determine the initial project schedule, including who will do what, when, and for how long.
- Allocate resources - Ensure that everyone understands who oversees what.
- Make project changes – There will be significant adjustments to the original concept.

3.4 Process/Activity wise Resource Allocation

Resource allocation is allocating assets in a way that supports your team's goals. In this project, developers are considered the primary resource, followed by the computers used in the office and the servers needed to deploy the project. For this project, it takes 73 days to set up the entire system. The details of each step in the project are as follows:

- Project Management: This is the first phase of a project. In the first eighteen days of the development process, developers and the others spend time defining how to build this project from top to bottom, what approach to take, smaller goals and deadlines, and the overall requirements for completing the project. For example, computer specifications, software/technologies used to build applications, features, and required developers. This part occupies 20.7% of all work.
- Design: In this phase, we design the UI. We designed the application's web page for almost three weeks (15 days), and the management set out to create high-level and low-level diagrams of the project. This part accounted for 17.2% of the total workload.
- Development / Coding: The website is ready to be designed, and the developer has begun writing front-end and back-end code for the application. The entire process takes four weeks. It accounts for 34.5% of the total work.
- Test: The test began the moment the feature was added to the site. As a result, the developers assessed it all at once. Unit testing of the application started at the end of the implementation phase. This procedure will take five days to complete. It accounts for 5.7% of the overall effort.
- Deployment: After the test was finished, for Deployment, I purchased a VPS (Virtual Private Server) and domain to deploy the application to a live server. This will take five days. This is accounting for 5.7% of the total job.

Activity wise Resource Allocation		
Activity	Days	Work percentage
Learning Phase	14	16.10%
Project Management	18	20.80%
Design	15	17.20%
Development/Coding	30	34.50%
Testing	5	5.70%
Deployment	5	5.70%
Total	87	100.00%

Table 1: Activity wise Resource Allocation.

3.5 Estimated Costing

The cost was calculated based on the functionality requested by the customer for the website. It depends on your website's size, requirements, features, and design. It includes pre-made themes, logo design costs, homepage slider costs, search engine optimization, social media connections, and many others used to create this website. Tools are included. The developer's cost and resources used were also considered. The estimated cost of the entire project was 86,500 Taka (BDT). Additional hosting and domain fees will apply if additional service support is required within one year of provisioning.

Features	Costs
Internet Bill	5000
Domain Bill	4000
Hosting Bill	2500
Project Manager	60000
Developer	15000
Total costs	86500

Table 2: Estimated Costing.

Chapter 4

Methodology

Methodology Software Development Methodology is a process or a series of processes in an organized manner or arrangement of procedures used in the software development field to develop software by dividing the development work into smaller, parallel, or sequential steps to reduce time and follow a discipline to the development process. It is a very wide and enormous topic, it consists of certain phases like Planning, Defining Requirements, Designing, Developing, Testing, Deployment, and Maintenance. It defines how software should be built and what discipline should be followed to produce a fruitful outcome in a given time. There are different types of software development methodologies and practices, that includes: 1. Agile 2. Waterfall 3. Spiral 4. Prototype 5. Iterative 6. Incremental 7. Scrum 8. Rapid Application Development 9. Extreme Programming.

For this software, we have decided to choose the Agile methodology. It may sometimes take iterative development too.

Agile is one of the most common and popular software development methodologies. It mainly focuses on how to rapidly satisfy the customer and their requirements. In Agile methodology, all the tasks are broken down into smaller phases, and requirements and solutions come through collaboration between different team members of a particular project and frequent improvements and iteration at all phases.

4.1 Why Agile

The project is created using the agile software development life cycle technique. The agile software development process is one of the simplest and most successful ways to convert a concept for a company's demand into software solutions. Continuous planning, learning, improvement, team participation, evolutionary development, and rapid delivery are components of agile software development methodologies. It enhances one's ability to adapt to change. Agile Development Ensures Success: As agile development is incremental, features are supplied in stages, resulting in immediate advantages as the product is developed. The reason we choose this methodology are:

1. Faster development time: Agile follows an iterative discipline which means the outcome of the product is ready to market faster, staying one step ahead of the competition and quickly getting its benefits. Agile methods reduce the development cost and time to release.

2. Flexible Control: Since Agile methodology follows incremental development, works and phases can be broken into smaller parts and performed in fast and iterative cycles. This allows team members of the project to share progress and address problems and develop a solution through daily meetings, this creates transparency in the whole process.

3. Productivity and Quality: The Agile method follows an incremental nature which means that projects are finished in short phases, making them more manageable. It helps the project to be rolled out fast and development changes can be made at any time. It also has the ability to detect problems and develop a solution fast and efficiently which allows team members to get customer reactions and give feedback and continuously improve the software.

And It has more advantages also such as -

- Early and rapid development.
- A functional, ready-to-market product is achieved after a few revisions.
- First Mover Advantage.

Agile means providing products quickly and adapting work methods to meet customer needs.

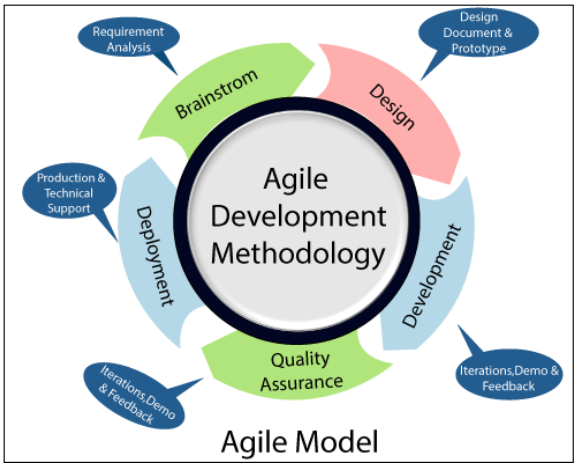


Figure 4.1: Agile method.

Chapter 5

Body of the Project

The report's body contains a detailed discussion of the work for those readers who wish to know all that was done in detail. The project's basic structure explains what was done, how it was done, the outcome, and what conclusions and recommendations can be made.

5.1 Work Description

A food ordering system is a system that can manage the relationship between customers and the restaurant within a short way. We will create an easy, faster, and smooth online food ordering system between customers and restaurants in this system. By using this system, people can quickly order foods from the restaurant's website. This web-based application system overcomes the issue of online ordering, login, registration, and contacts according to users' choices and demands. This system is made up of two parts. These are as follows-

- User Module: Users can register and log in to their accounts, see the details of the food and order their favorite foods. And also users can get detailed information about the restaurant from the website
- Admin Module: Admin can create new categories and items of foods. Also, the admin can update the restaurant's various information.

5.2 Requirement Analysis

Rich Picture:

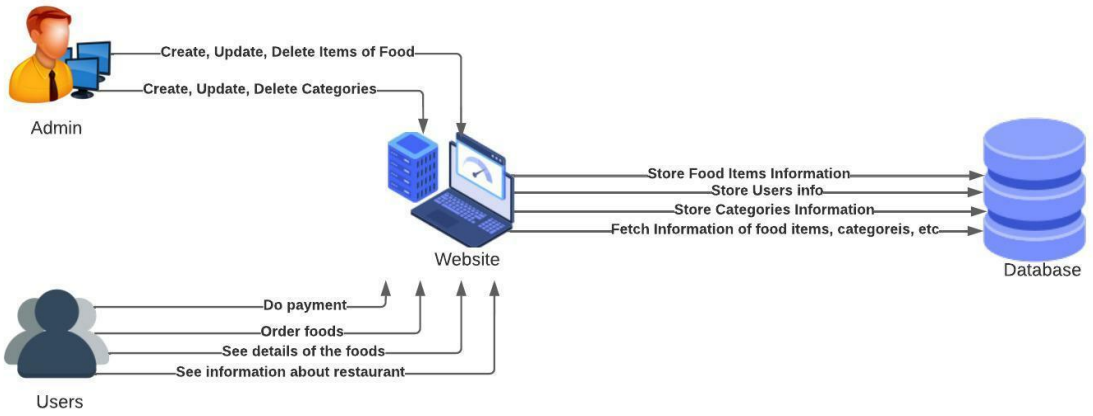


Figure 5.1: Rich picture.

Admin can create, update, and delete the items of foods, categories, and their details. All the things will be stored in the database. Users can order the foods, can see details of the foods, can see information about the restaurant, and can also pay by the website.

Functional Requirements:

Admin Requirements:

The admin can add new categories.

The admin can update any category.

The admin can delete any categories.

The admin can add new food items.

The admin can update any food items.

The admin can delete any food items.

The admin can map any food items into any category.

The admin can also alter his name or password.

User Requirements:

Users can order the foods from the website.

Users can see detailed information about the foods.

Users can see detailed information about the restaurant.

Users can register and login into the website.

System Requirements:

Online food ordering systems offer logout functionality to the users. To order the food from the system, the system will only accept valid login data. The system will provide a password recovery facility. When the checkout button is pressed for online payment, the system will redirect the user to pay.

Non-Functional Requirements:

Database Security:

Unauthorized access to the panel and database is prohibited, as is reading, and writing information. It must ensure that the client's information is secure.

Reliability Requirement:

The online food ordering system should provide a reliable environment for both customers and owners. Admin should be able to upload, delete, and update new items of foods and categories without any error.

Usability Requirement:

The system is designed for a user-friendly environment and is easy to use.

Availability:

The system should be operational 24 hours a day, seven days a week.

Efficiency Requirement:

When all the functionalities are implemented, customers can order foods efficiently.

5.3 System Analysis

System analysis is a problem-solving technique that entails looking at a more extensive system, breaking it down into its constituent elements, and determining how it functions to achieve a particular purpose. It is used in information technology, where computer-based systems demand specific study due to their structure and design.

5.3.1 Six Element Analysis

Process	System Roles					
	Human	Non-computing Hardware	Computing Hardware	Software	Database	Communication & Network
Homepage	User	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Login/Sign Up	User, Admin	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Order Online	User	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
About Us	User	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Contact Us	User	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Add to Cart	User	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Checkout	User	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Admin Dashboard	Admin	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Item List	Admin	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN
Category List	Admin	N/A	Computer/Smart Phone	Chrome, Edge, Firefox and any other browser	SQL Server	WAN/LAN

Table 3: Six Element Analysis.

5.3.2 Feasibility Analysis

The analysis of a proposed project to determine whether it is feasible and should go ahead is called feasibility analysis. Confirmation of design, plan, and strategy is the main priority of this analysis. Assumptions, restrictions, decisions, and methodologies can all be validated using this method. There are some central parts of the feasibility analysis.

They are -

Technical Feasibility: The proposed system's software, hardware, and other technical needs are evaluated in technical feasibility. This assesses how we intend to provide a product or service to clients. Employees examine materials, transportation, our company's location, and the technology required to bring it together. The System was built with the ASP.NET framework. It aided in the development of a far more efficient and speedier website. Furthermore, these technologies are critical in modern industry and are widely employed by a rising community.

Operational Feasibility: The successful proposed system solves problems and meets system requirements set during the scope definition and problem analysis phases, determining its operational feasibility. It is dependent on the project's human resources and requires predicting whether the system will be used once it is built and implemented. The online food ordering System has been developed so that it can be conducted very quickly. People will accept it without any doubt. It is a well-planned system. It will be accessible to people of all ages. It reduces physical and technical hardships. Users need not have a lot of technical knowledge to run this system. We hope this system will be able to fulfill the users' requirements.

Economic Feasibility: In economic feasibility, costs and benefits are identified. It determines cash flow and assigns values to costs and benefits. Development costs and production costs are included in economic feasibility. If this system can reach the users, it will bring benefits. On one hand, it will reduce the costs of wasting human energy, pens, and paper. On the other hand, help will come depending on the uses.

5.3.3 Problem Solution Analysis

A web developer must deal with the main problem during the web development process is that the requirements are constantly changing. According to a poll done by Stack Overflow Developer, 33% of respondents contemplate developing a website with no specified requirements. Gathering requirements is critical before beginning to create any product.
The following is a solution to this problem:

- Describe the project's scope.
- Make no assumptions about what is required.
- Communication between teams is essential.
- Make a list of requirements.
- Clients should be involved from the start.

Project Management: Multitasking can sometimes lead to more problems than it is worth. As a result, a skilled planner must make the workflow smooth and structured. Adapting to current market trends: As technology improves, so does the number of users; nowadays, everyone is addicted to their smartphones, so being mobile-first or mobile-only is a challenge. The solution is to keep up with market developments.

5.3.4 Effect and Constraints Analysis

Effect: As before, when the software was not present, the restaurant couldn't give the customers the online ordering system. The old system was good, but people nowadays are very used to the online system. And also, people are busy with their different work and prefer the online order system very much nowadays. For this reason, the software is built to solve this issue. After developing the software, we hope that the restaurant can get more customers. Also, customers can see which foods are in the restaurant, and also see different information. We hope the software will be beneficial for the restaurant.

Constraint: There are some difficulties while finding a solution for this software. The client doesn't give a detailed idea about the website interface. Also, they don't provide the functionalities information in detail. So, it was a problem for us to find out the proper steps for this. The budget of the software was a problem, but later, some changes took place and minimized a few functions and workloads for the software to meet up with the budget. This software was adequate for the company. It saves time and extra money.

5.4 System Design

Systems design specifies system components such as modules, architecture, components, interfaces, and data based on the criteria presented. It is the process of identifying, creating, and designing techniques that meet a business or organization's specific objectives and standards.

5.4.1 UML Diagrams

A graphical depiction of a system is a UML diagram and its major participants, roles, actions, objects, or classes based on the UML (Unified Modeling Language) to understand better, update, manage, or keep system documentation. UML diagrams can show a project before it begins or documents it after it has been completed. UML diagrams can depict a project before it starts or write it once completed. However, UML diagrams' overall objective is to assist teams in envisaging how a project is or will work, and they may be applied in any sector.

Use case:

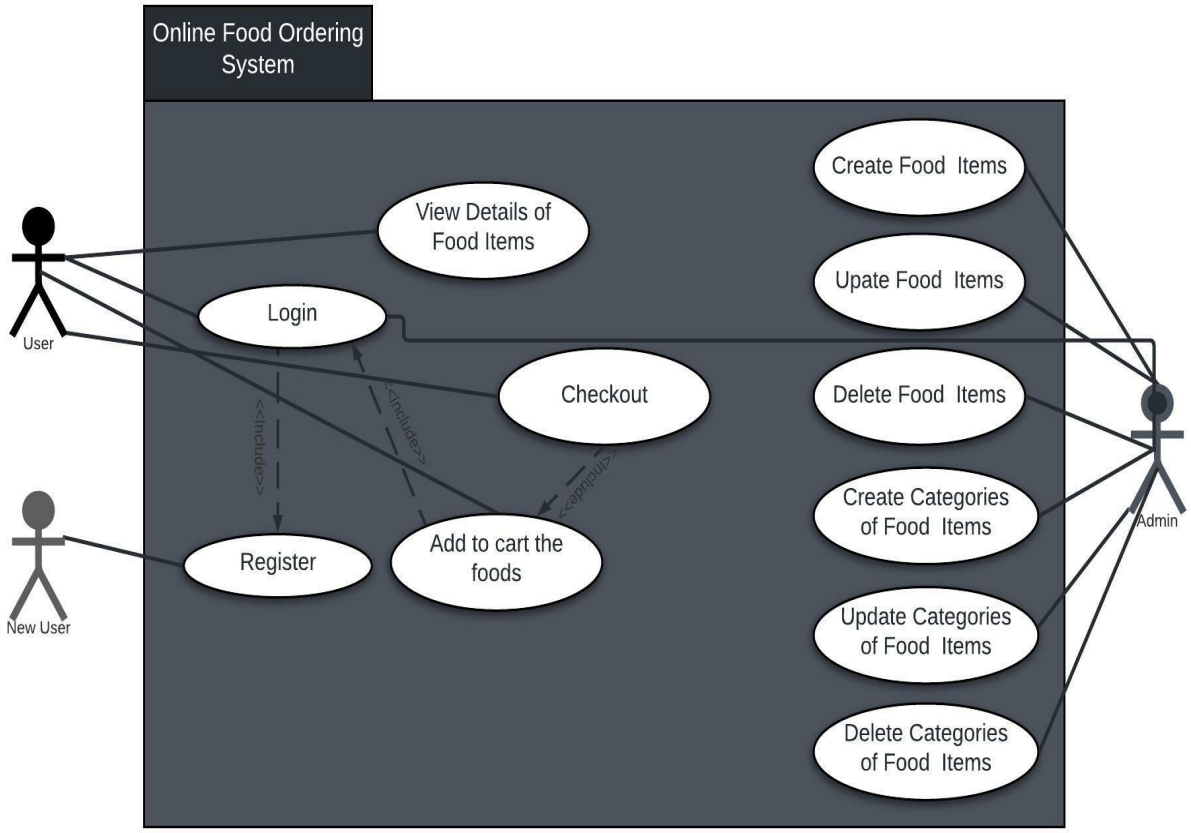


Figure 5.2: Use case diagram.

Activity diagram :

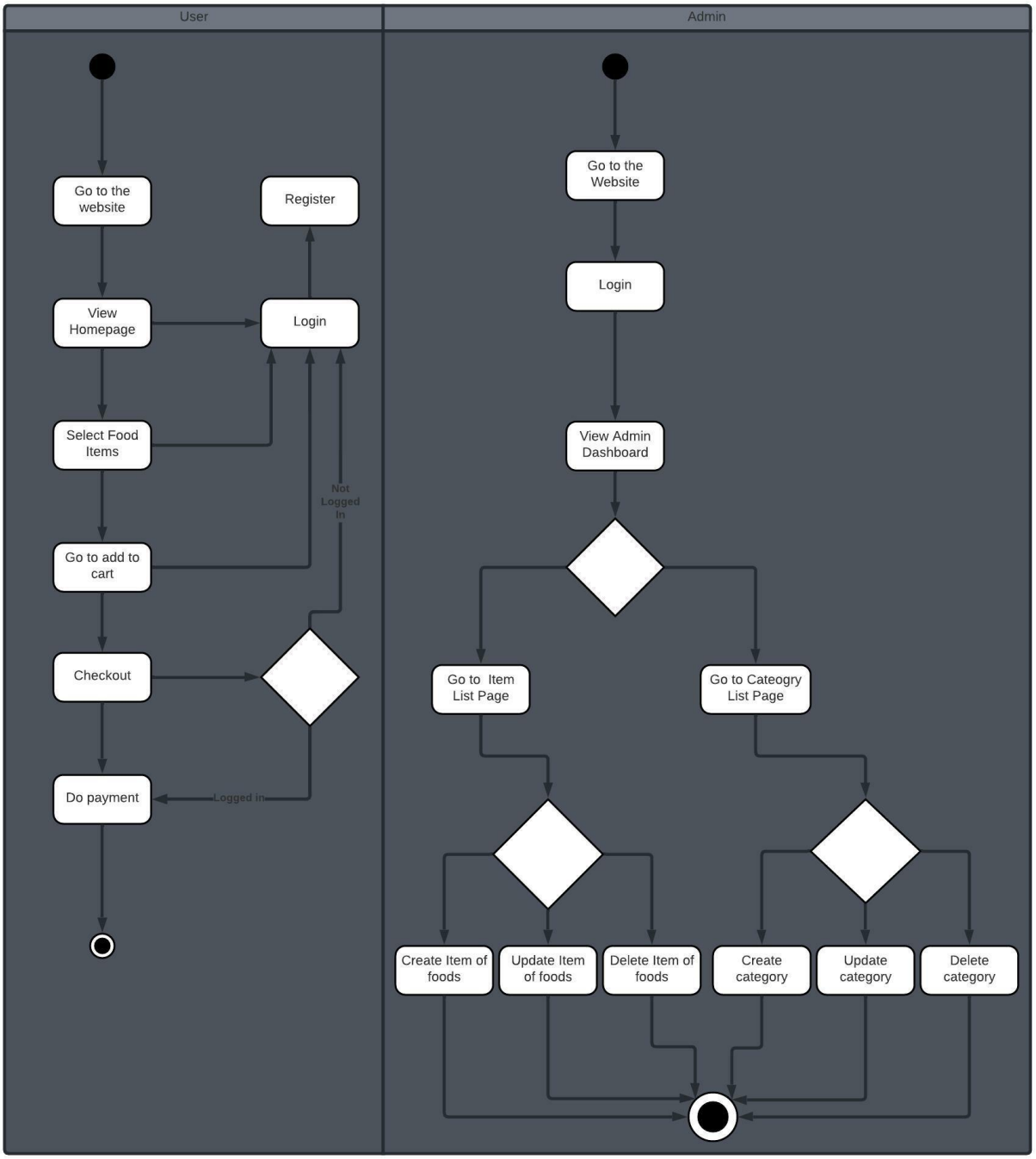


Figure 5.3: Activity diagram.

5.4.2 Architecture

Architecture defines the backbone of any structure. It is mapped to show how a system will stand. For a website, a website architecture establishes the website's design, that is, how the website will work, how the data will be transferred, and where it will be stored. To discuss more details, we can refer to the architecture we designed for our project. In our project, users can only see and interact with the front end of the website. The front end receives the request or commands from the users. It transfers it to the web server, retrieving and storing data from the database and sending it back to the frontend for the users as a response.

5.5 Implementation

As it's the last specification, design, and coding assessment, software testing is a vital aspect of software quality assurance. Testing is the one phase in the software engineering process that could be seen as destructive rather than productive. A software testing strategy incorporates software test case creation approaches into a well-planned series of procedures that result in practical software development. Testing is a collection of actions that can be organized and conducted in an organized manner. Program testing aims to confirm software quality using approaches that may be used to both strategic and small-scale systems affordably and effectively.

5.6 Testing

5.6.1 Input

The following are the inputs for Online Food Ordering System:

Input	
Process	Field Types
Login	Email - string Password - string
User registration	Name - string Email - string Password - string Mobile no - String
Add to Cart	Amount - double Tax - double Total Amount - double Quantity - int Image - string Size - string Unit Price - double
Checkout	Address - string Total Price - double Info - string

Table 4: Inputs for Online Food Ordering System.

5.6.2 Output

The following are the inputs for Online Food Ordering System:

Output	
Process	Field Types
Login	On success- Redirect to the user dashboard. On failure- Show error message “Please enter correct id or password.”
User registration	On success- Show success message “Registration successfully done.” On failure- Show error message “Registration not done.”
Add to Cart	On success - Redirect to checkout On failure - Show message "No items in the cart"
Checkout	On Success - show success message "Order is Successful" On failure - show error message "Something is wrong, please try again" If any information is missing - show error message "Please fillup the information"

Table 5: Outputs for Online Food Ordering System.

5.6.3 Test Results:

Not all the functionalities of the application are added. They are being added as the requirements are fulfilled. Hence there are more chances of more test cases in the future for this application. The developers immediately resolve any problem that arises during the test. If the testing phase is completed 100%, a beta version of the system will be released for office use. From the test table, it can be observed that all the test cases were passed. The failure and success outcomes of each functionality have also been mentioned. After completing the testing process, the team will make sure to prepare user manuals, documentation for the test cases, and documentation for the defects to explain the complicated tasks in plain English for the non- technical personnel as well for the future developers who might join the development team. A test summary will also be generated to show how the testing was done, and the difficulties faced.

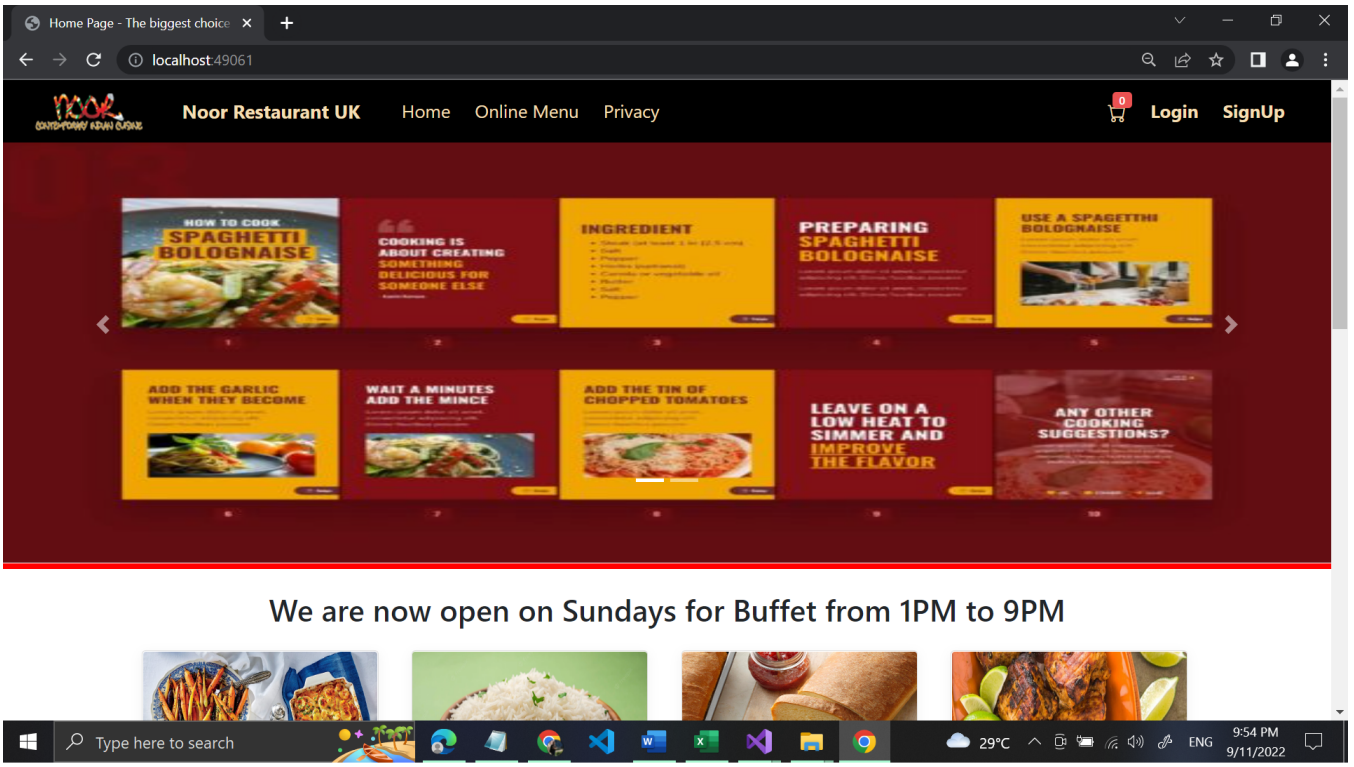
Chapter 6

Results & Analysis

6.1 Overview

In this section results or outcomes are shown. The final software product is the result of our efforts. In this section, I like to show the screenshot of the web application so it can be seen about how the actual application looks like:

- Homepage:



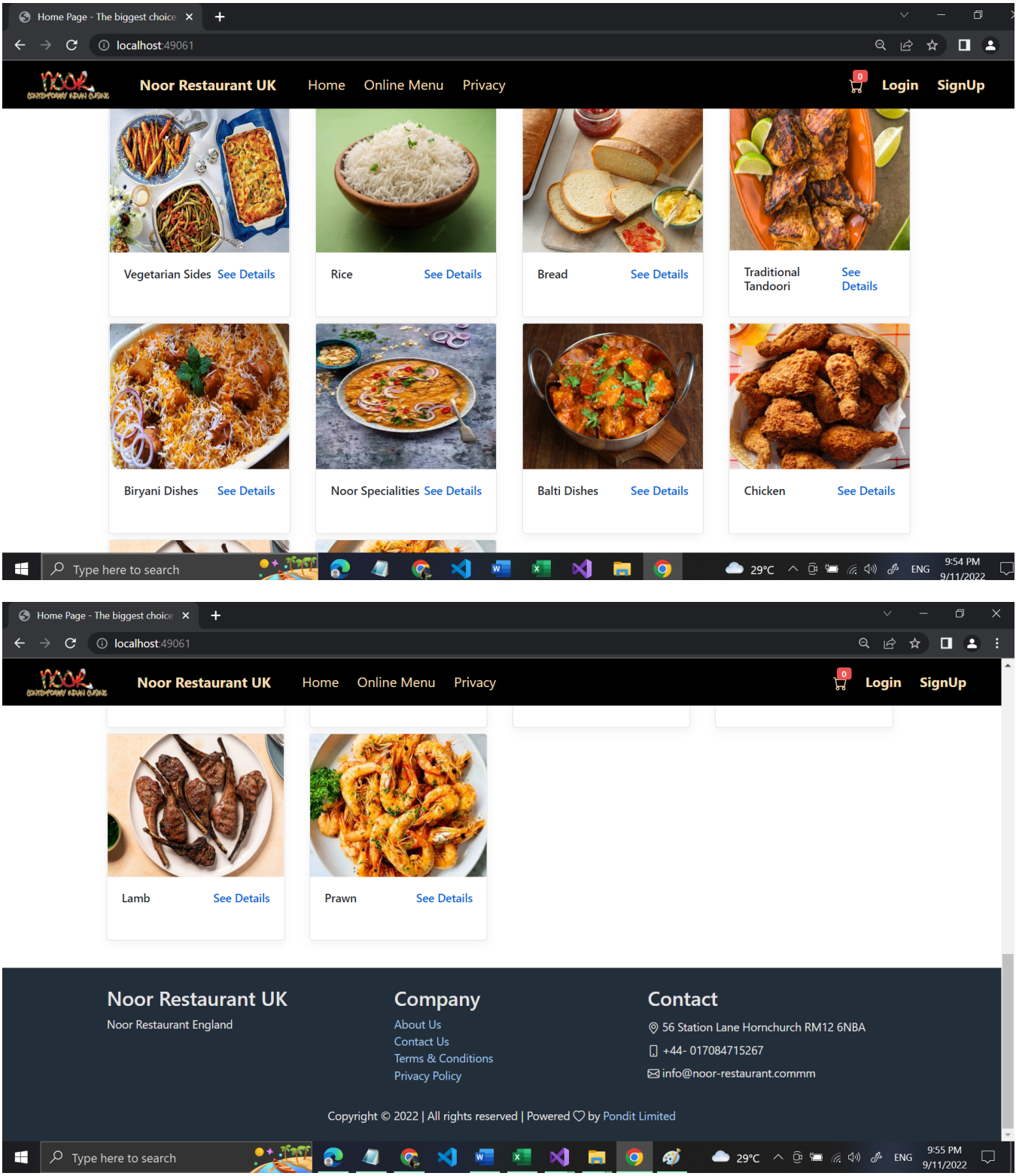


Figure 6.1: Homepage.

These are the screenshots of the homepage. Anyone who goes to the website first sees this homepage.

On this page, from the navigation bar, anyone can go to any specific page.

Then, a portion is for carousels. Admin can add many carousels in this place.

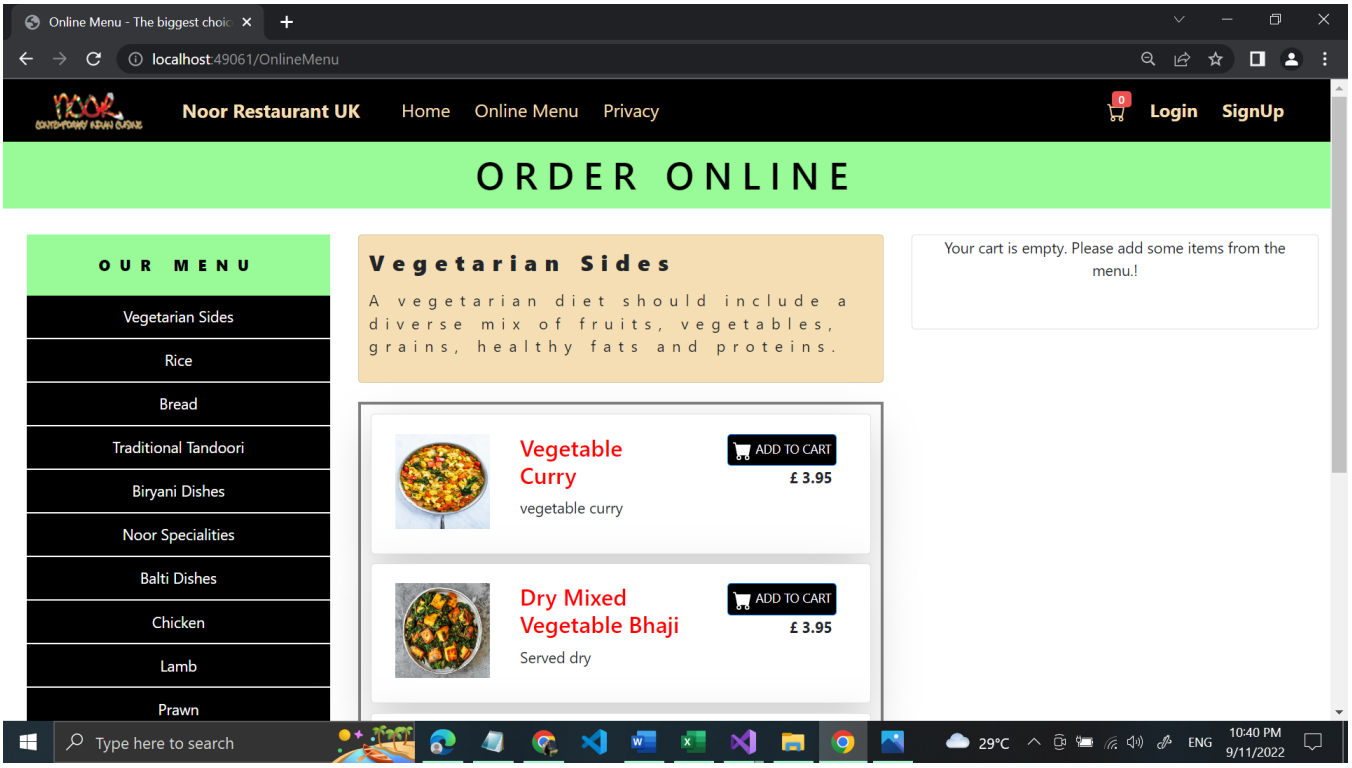
In the next portion, the admin can give any title or information to the users.

And the next portion is for the Food Categories. Here, users can see the categories of food which are in the Noor Restaurant. When users click on See Details, a new page will load with food items under the selected category.

And the last part is the footer. In the footer, there is some information about the restaurant. Here also attach some links by which users can go to any other page such as the About us page and so on.

The header and Footer are the same on every page for the users.

- Online Menu:



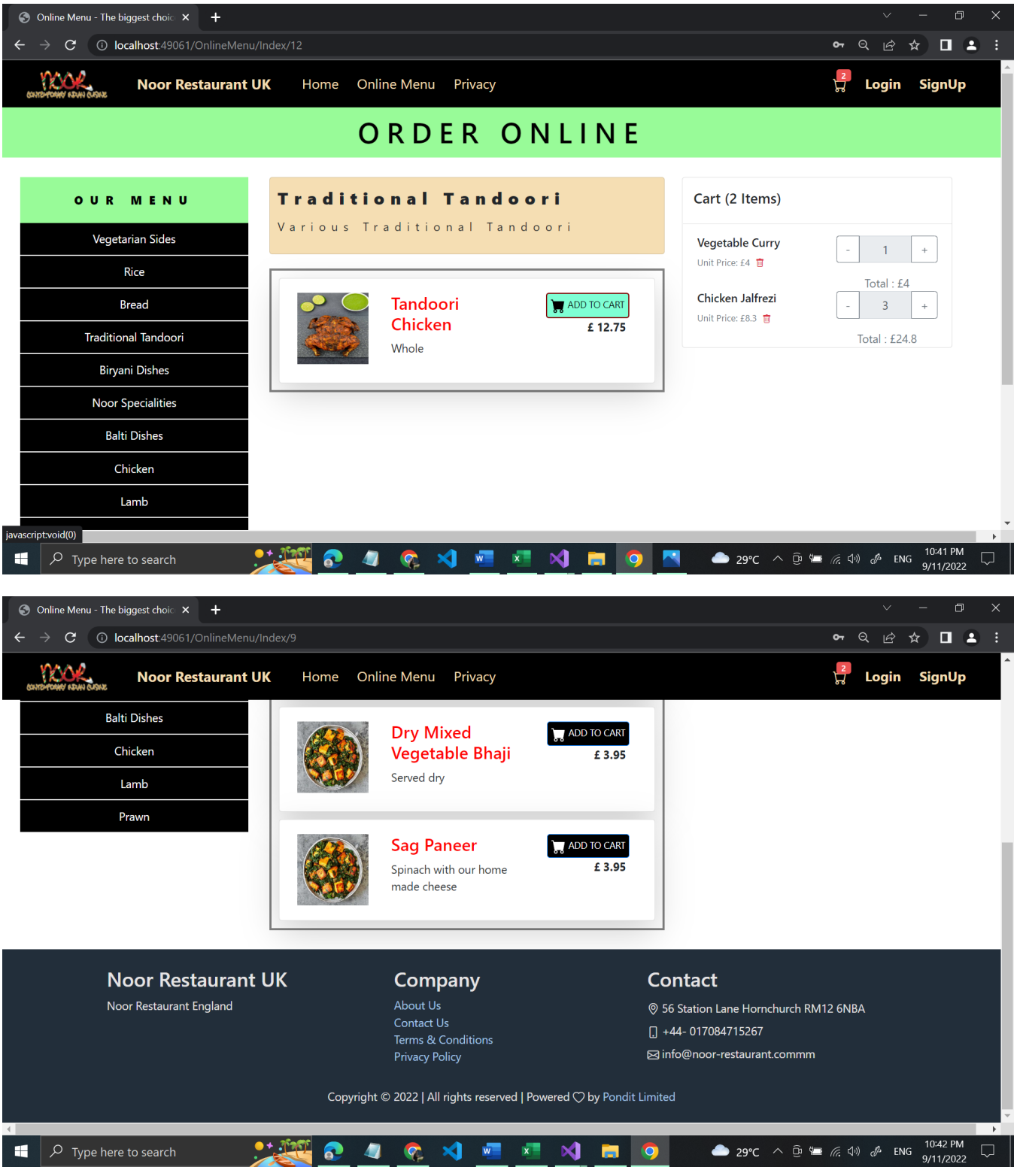


Figure 6.2: Online Menu Page.

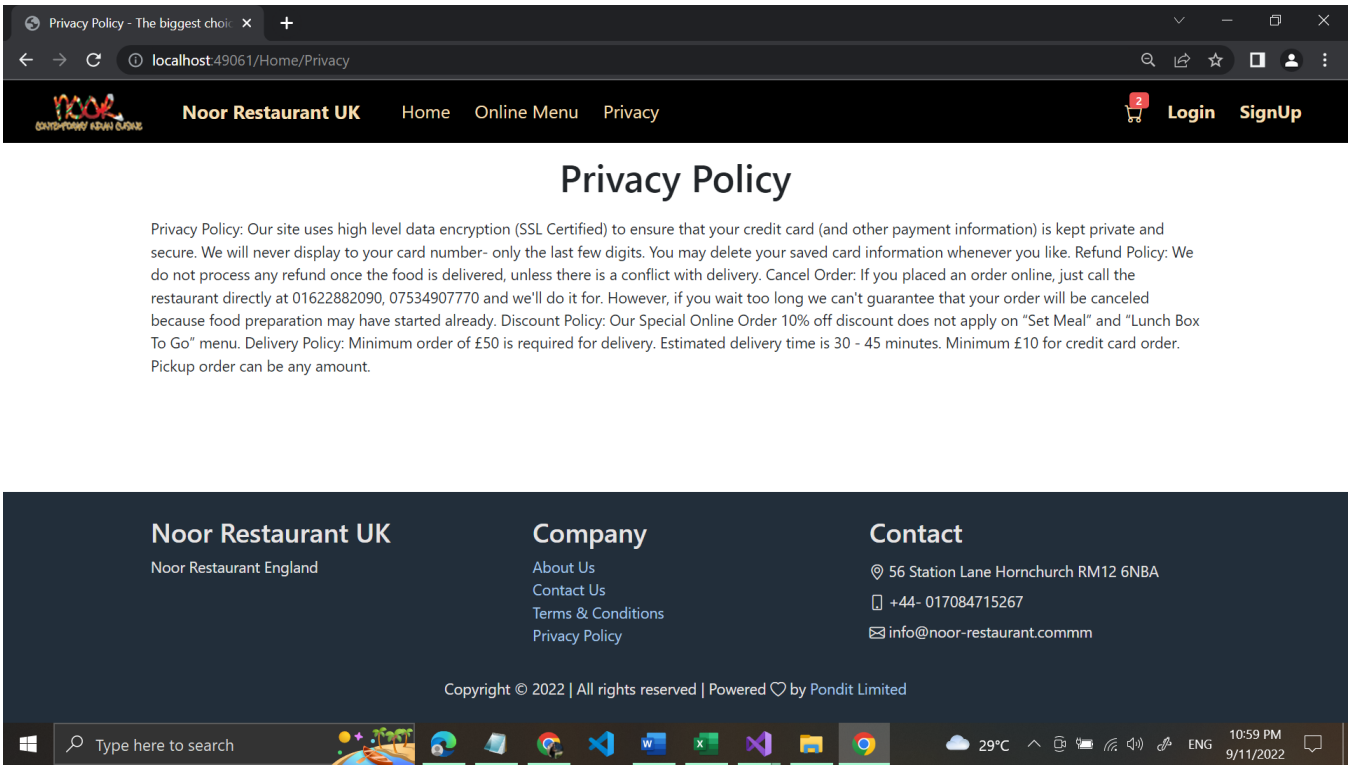
These are screenshots of the online menu page.

On this page, users can see all the details of the food items. Here users can select any category from the left side and food items will show in the middle under the selected category.

From here, users can add food items to the cart.

If the cart is empty, then on the right side, there will show a message that the cart is empty. And when anyone keeps anything in the cart, then on the right side, there will show some information that is in the cart.

- Privacy, Terms and Conditions, About Us:



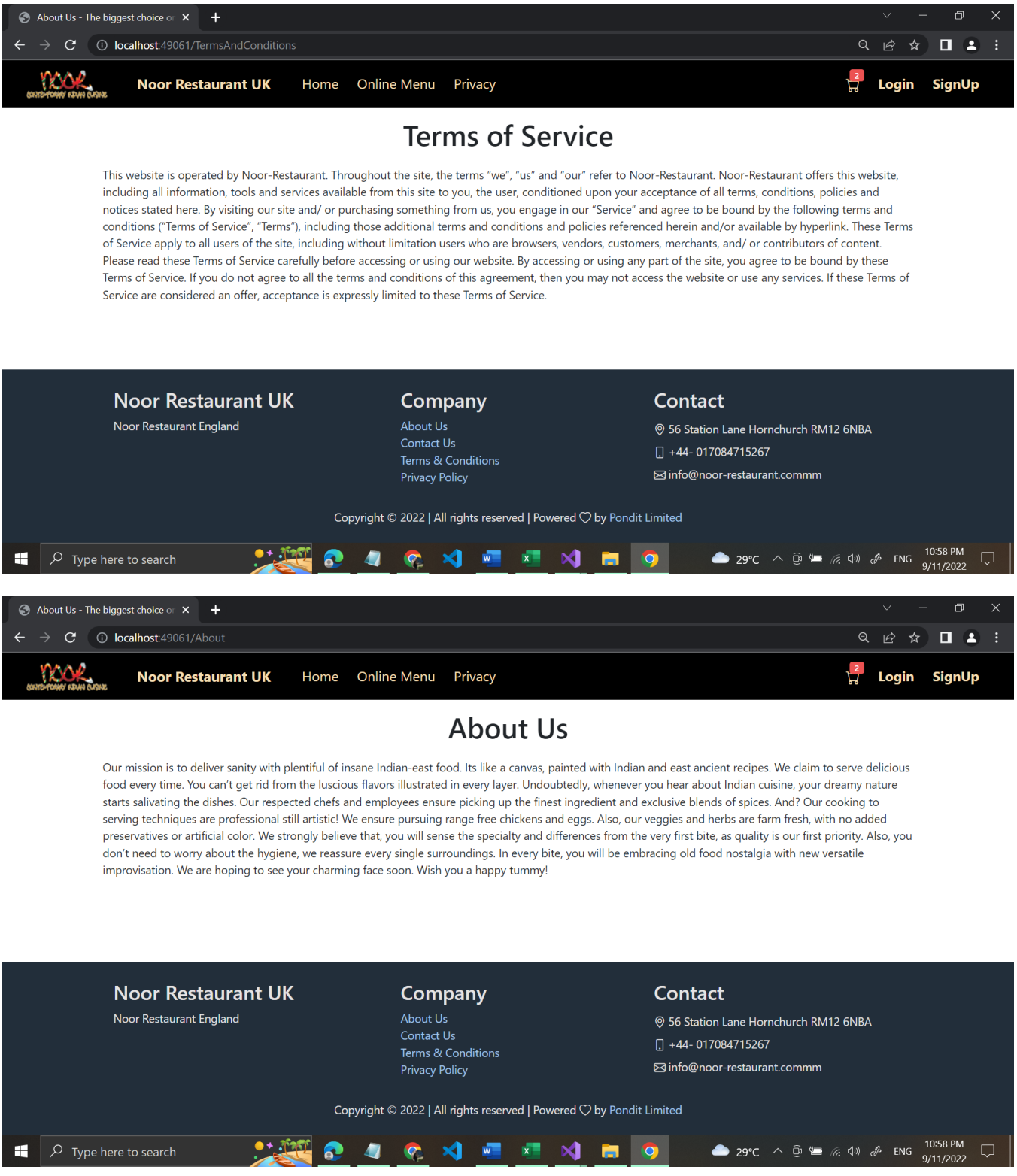


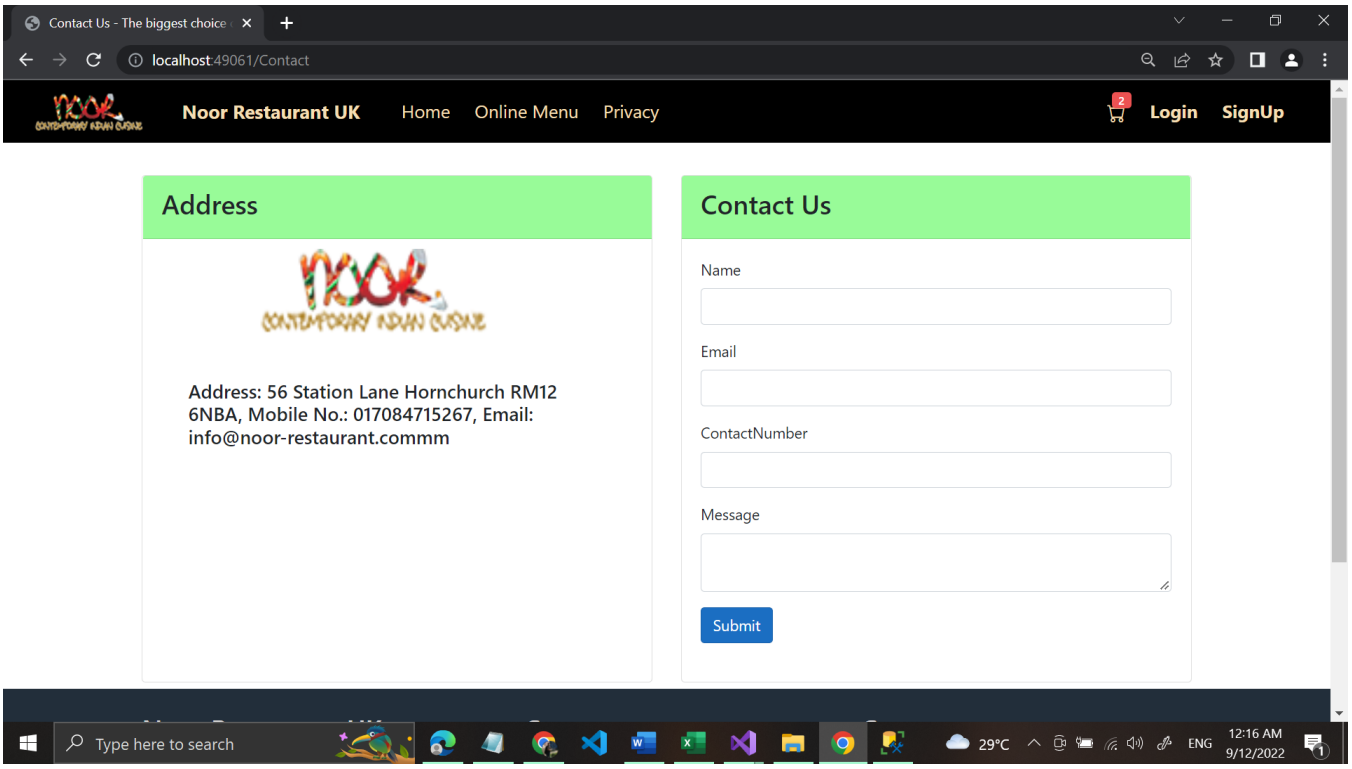
Figure 6.3: Privacy, Terms and Conditions, About Us Page.

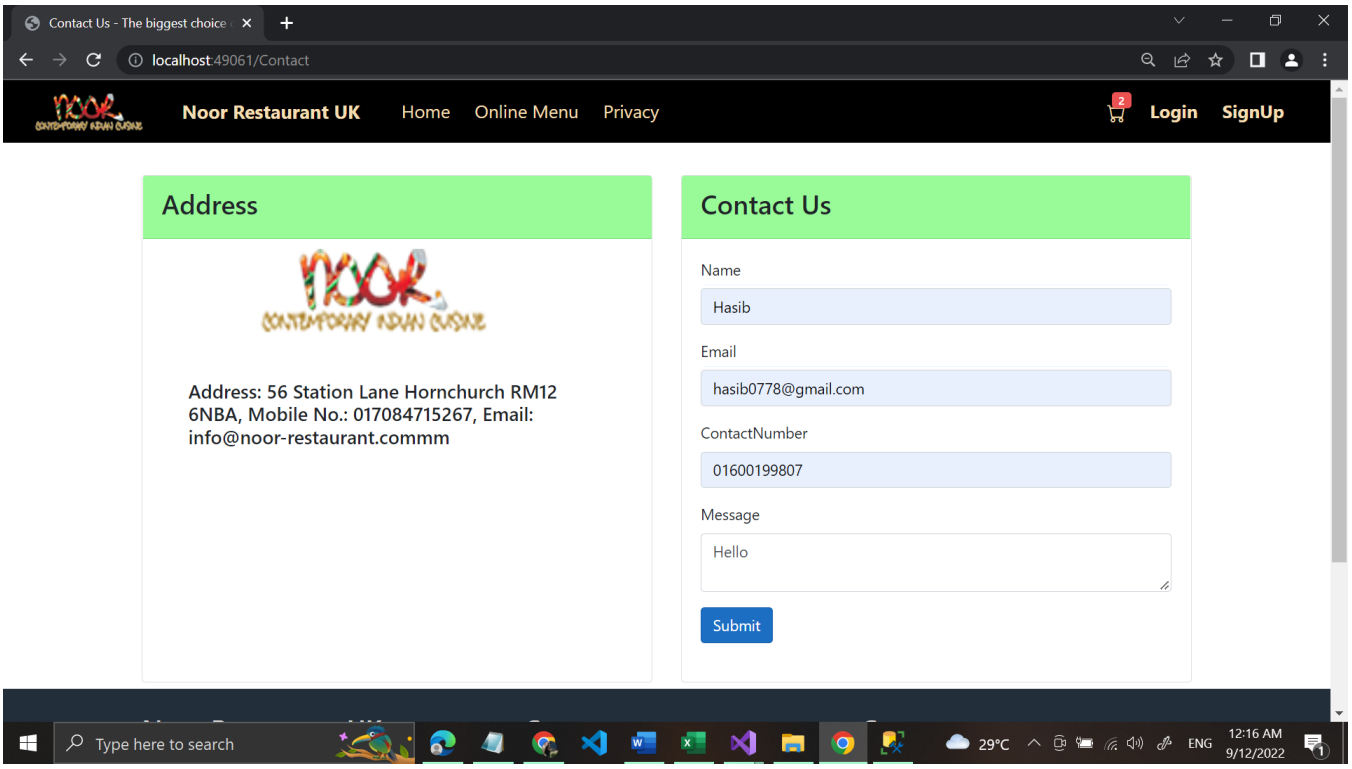
These are screenshots of the Privacy, Terms and conditions, and About us pages.

These 3 pages are almost the same so I give the screenshots of these pages together.

These pages contain some information and the admin can update these information.

- Contact Us:


Contact Us - The biggest choice
localhost:49061/Contact
Noor Restaurant UK
Home
Online Menu
Privacy
Login
SignUp
Address
Address: 56 Station Lane Hornchurch RM12 6NBA, Mobile No.: 017084715267, Email: info@noor-restaurant.commm
Contact Us
Name
Email
ContactNumber
Message
Submit
Type here to search
29°C
ENG
12:16 AM
9/12/2022


Contact Us - The biggest choice
localhost:49061/Contact
Noor Restaurant UK
Home
Online Menu
Privacy
Login
SignUp
Address
Address: 56 Station Lane Hornchurch RM12 6NBA, Mobile No.: 017084715267, Email: info@noor-restaurant.commm
Contact Us
Name
Hasib
Email
hasib0778@gmail.com
ContactNumber
01600199807
Message
Hello
Submit
Type here to search
29°C
ENG
12:16 AM
9/12/2022

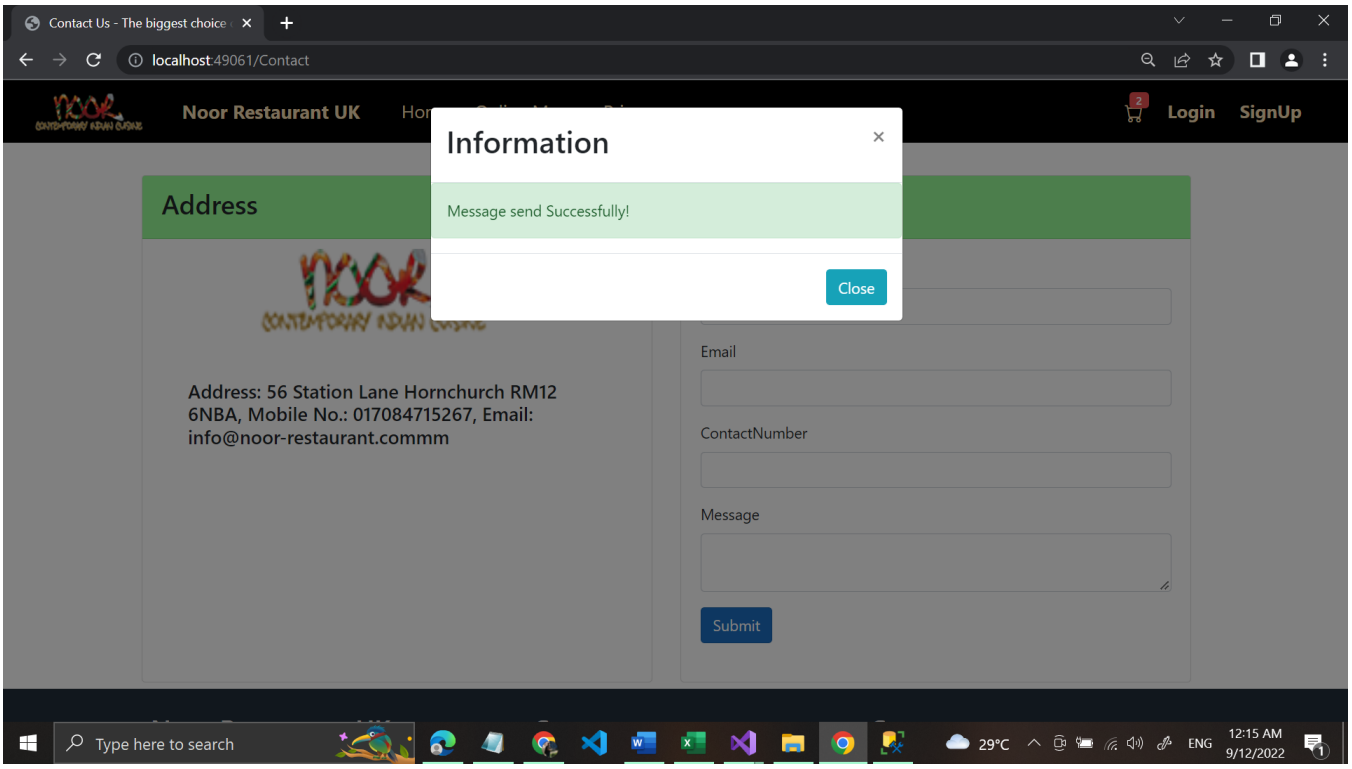


Figure 6.4: Contact Us Page.

These are screenshots of the Contact Us page.

Here, users can give the message to the restaurant. Also, users can see the contact information. Here also, a mail will be sent to the user so that he can understand that his message was sent, and also a message will be sent to the admin so that he can know that a user has sent a message.

- Add to Cart:

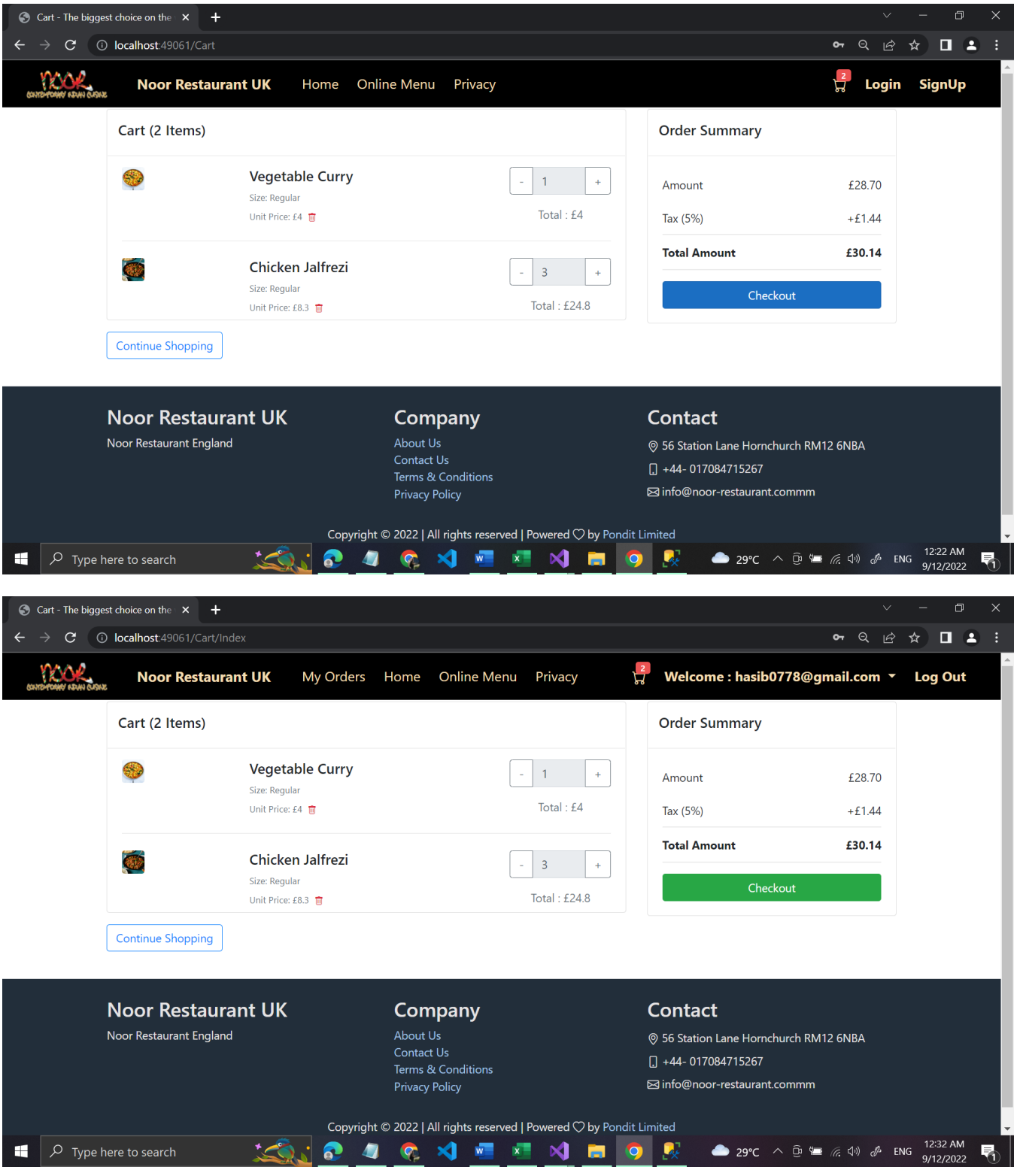


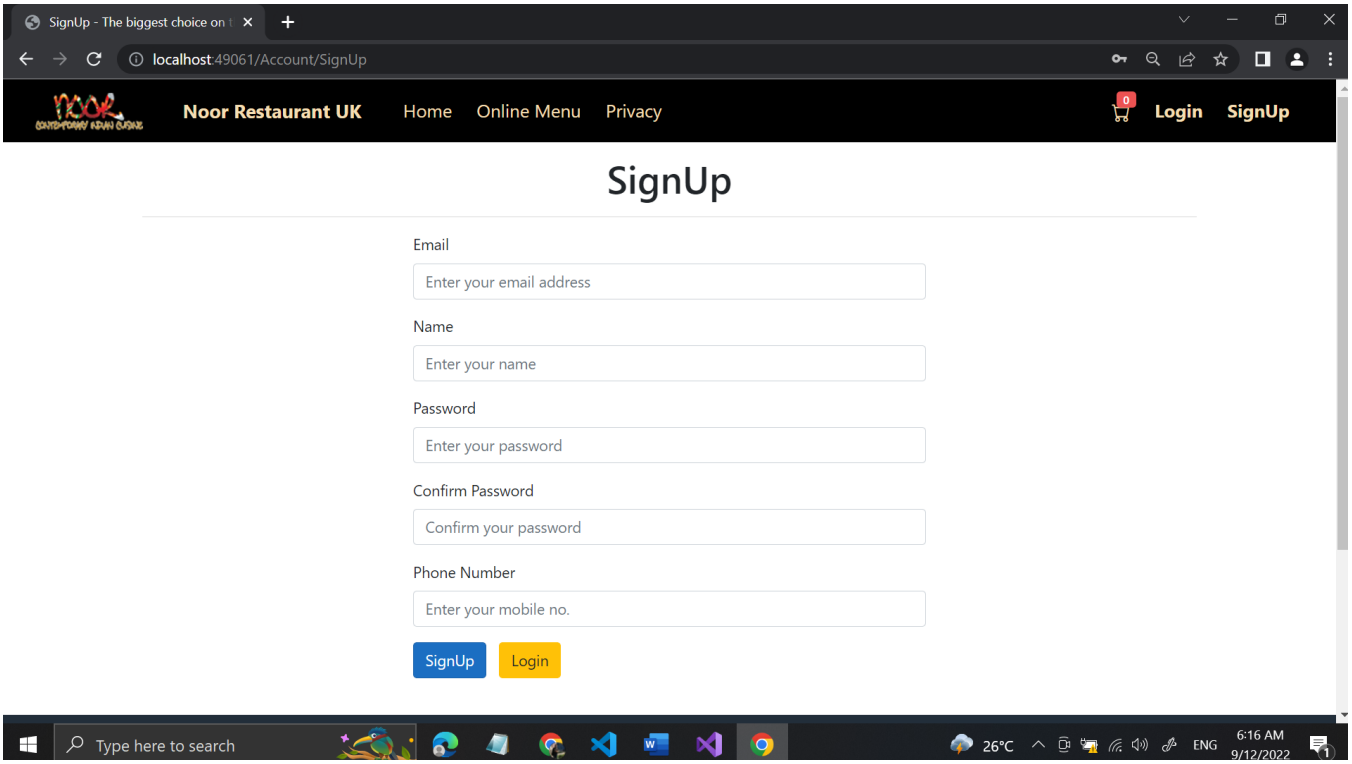
Figure 6.5: Add to Cart Page.

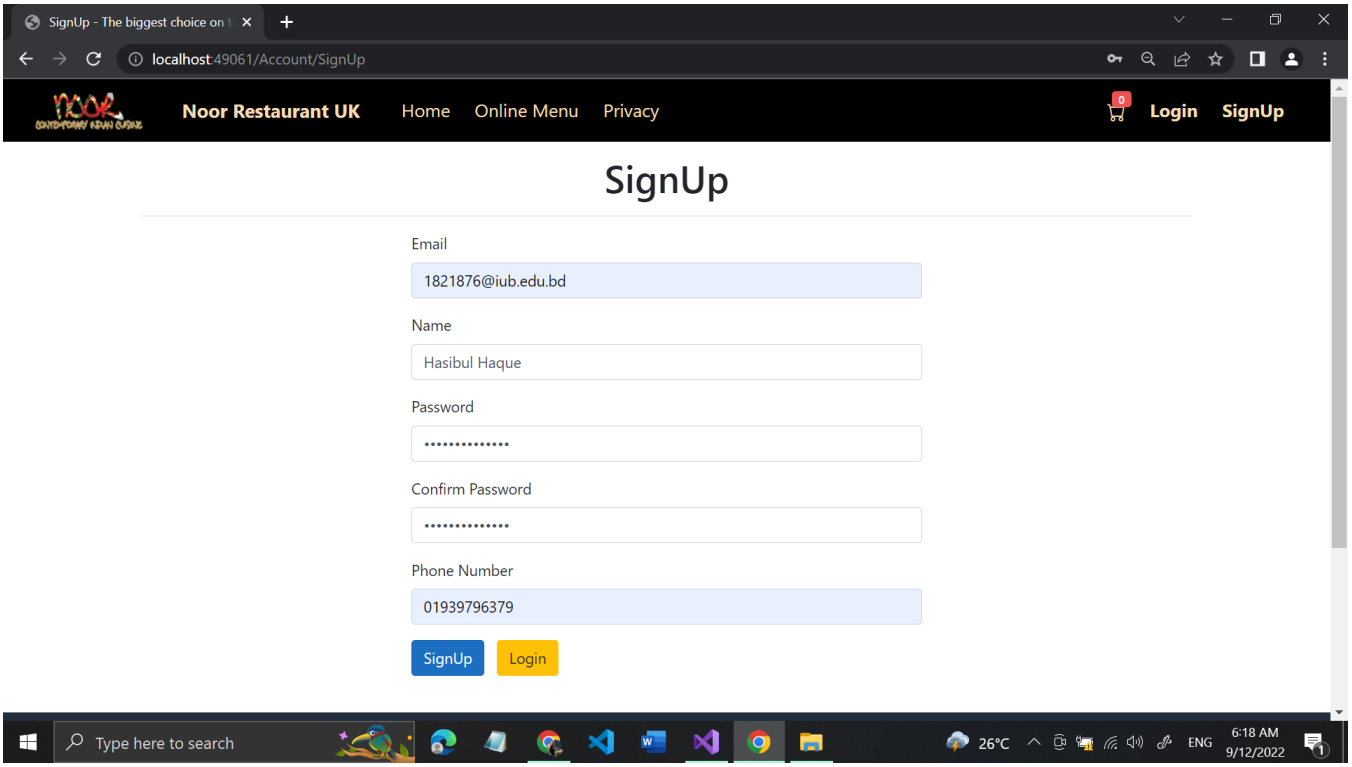
This is the screenshot of the Add to cart page.

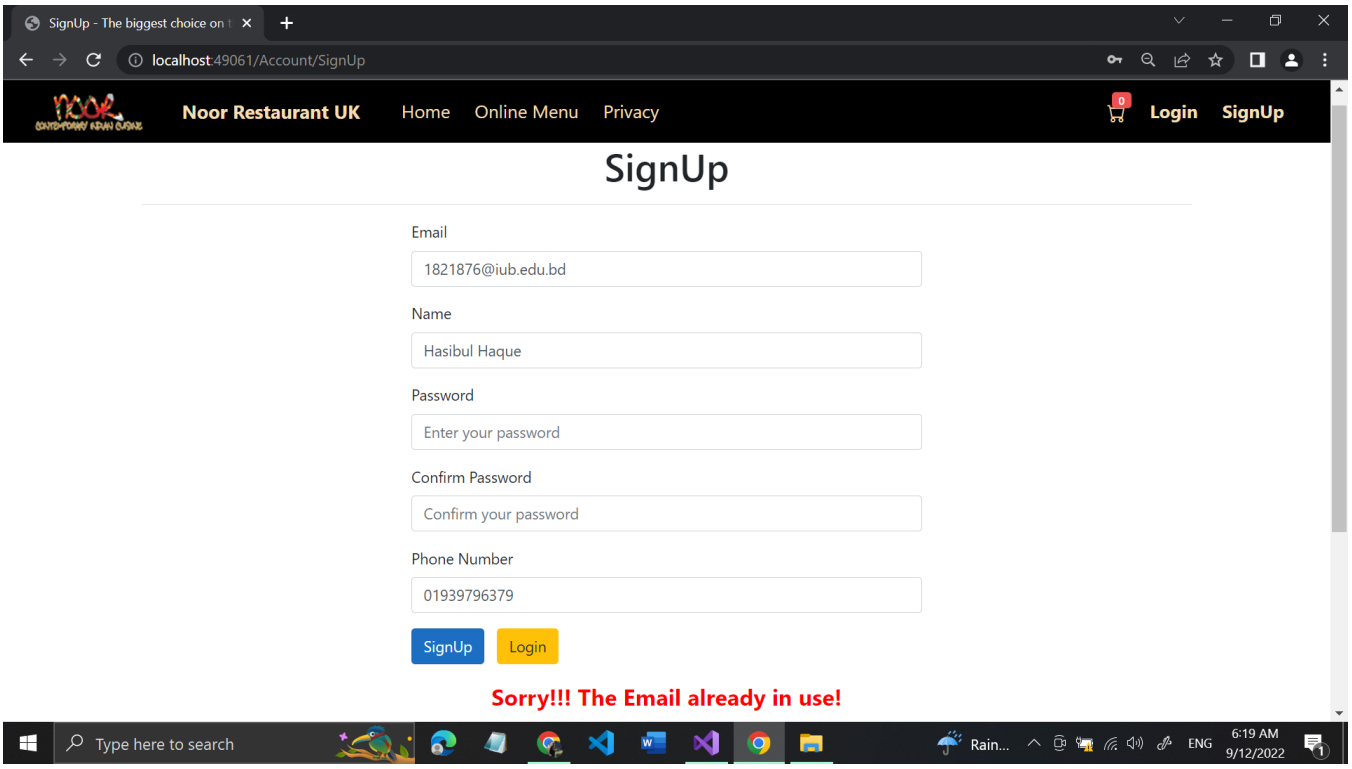
If the user is not logged in then if the user clicks the checkout button, then the login page will be loaded. The user can proceed further if he is logged in.

And if the user is not logged in, then the color of the checkout button will be blue. And if the user is logged in, then the color of the checkout button will be green.

- Sign Up:







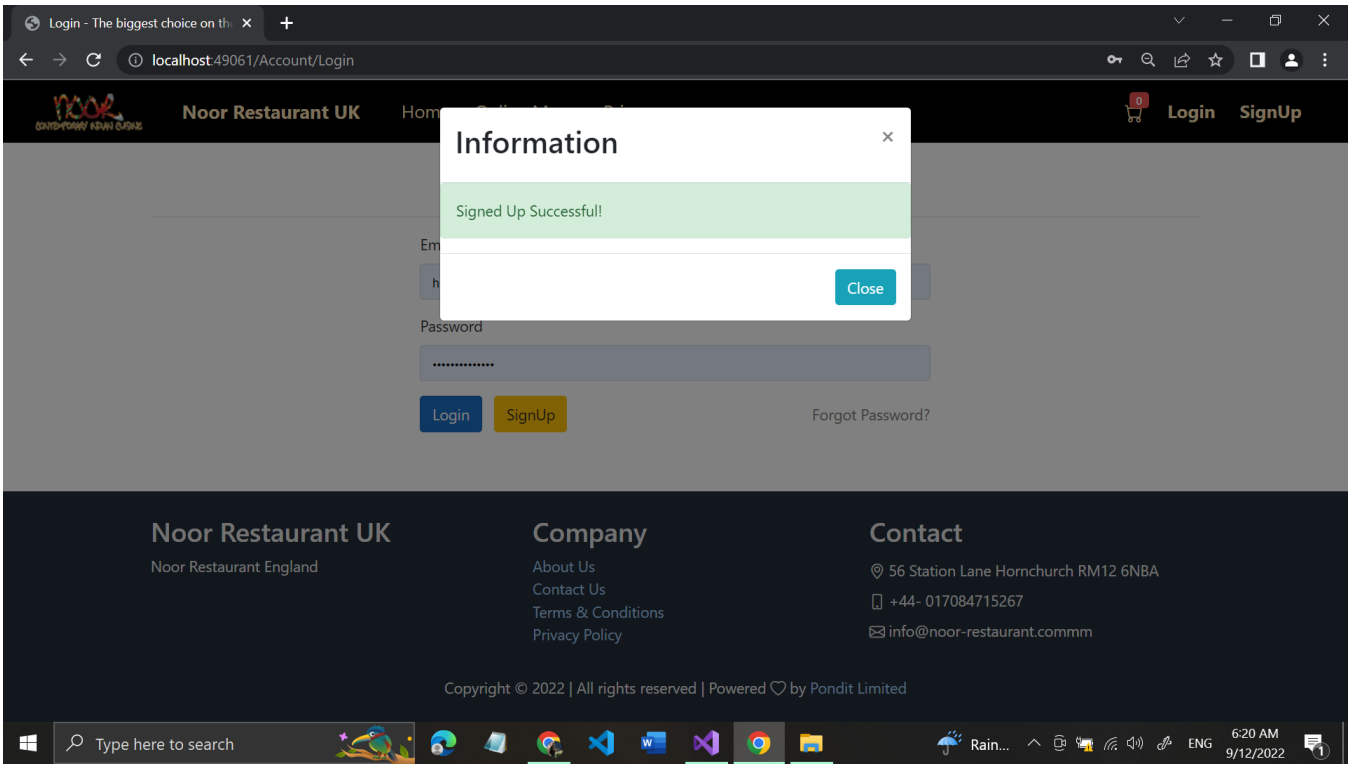


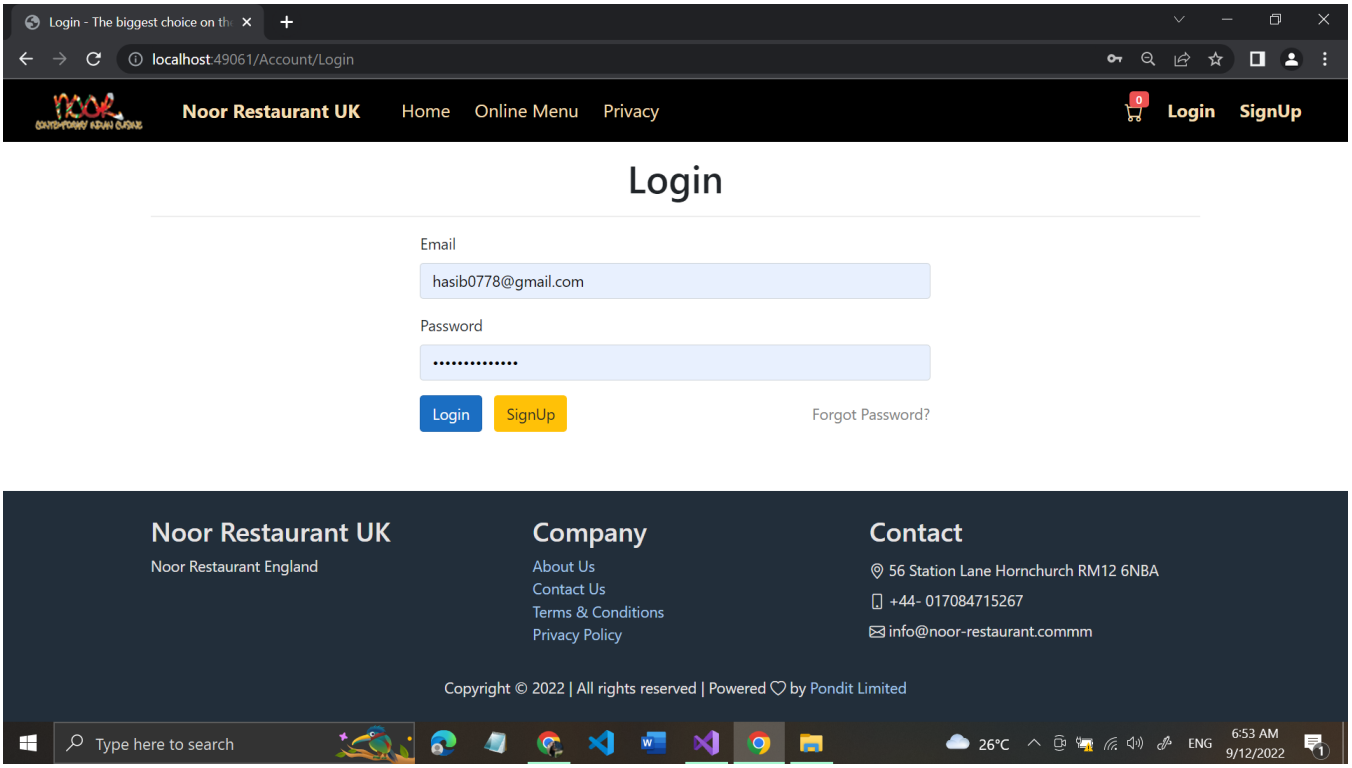
Figure 6.6: Sign Up Page.

These are Sign Up pages.

If the user gives an email address that is already in use then an error message will be shown. Also, if the user gives a weak password, an invalid phone number, and so on then also error messages will be shown.

If the sign-up is successful then the user will receive an email. And also the website will show a dialog message with a success message and will go to the login page.

- Login:



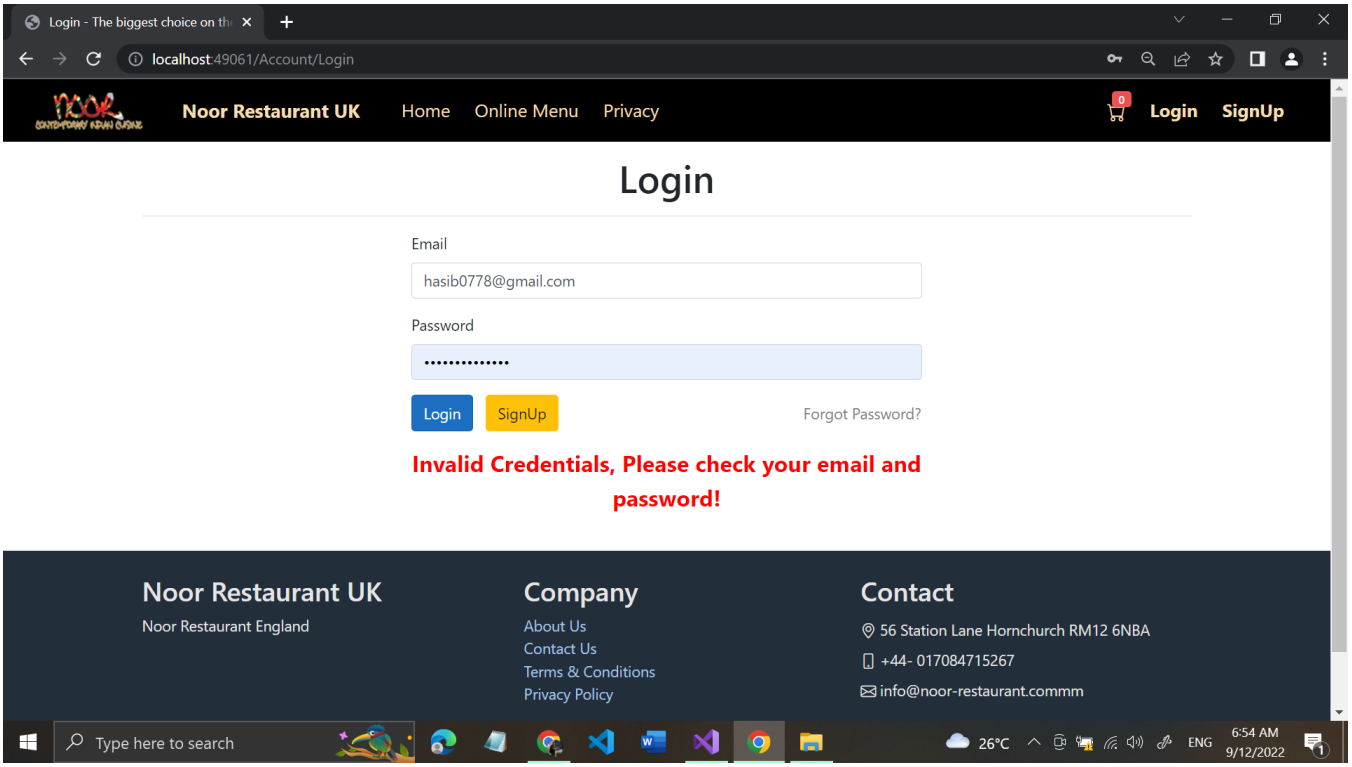


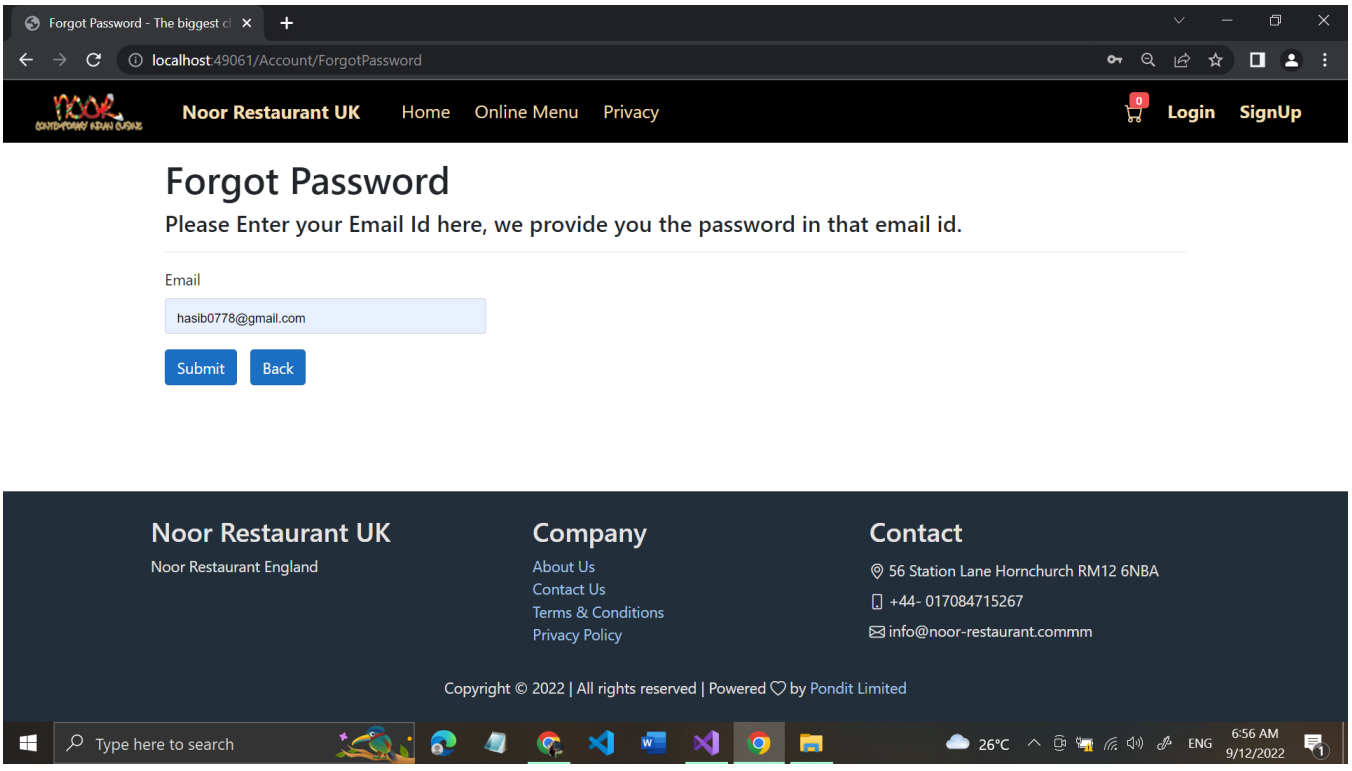
Figure 6.7: Login Page.

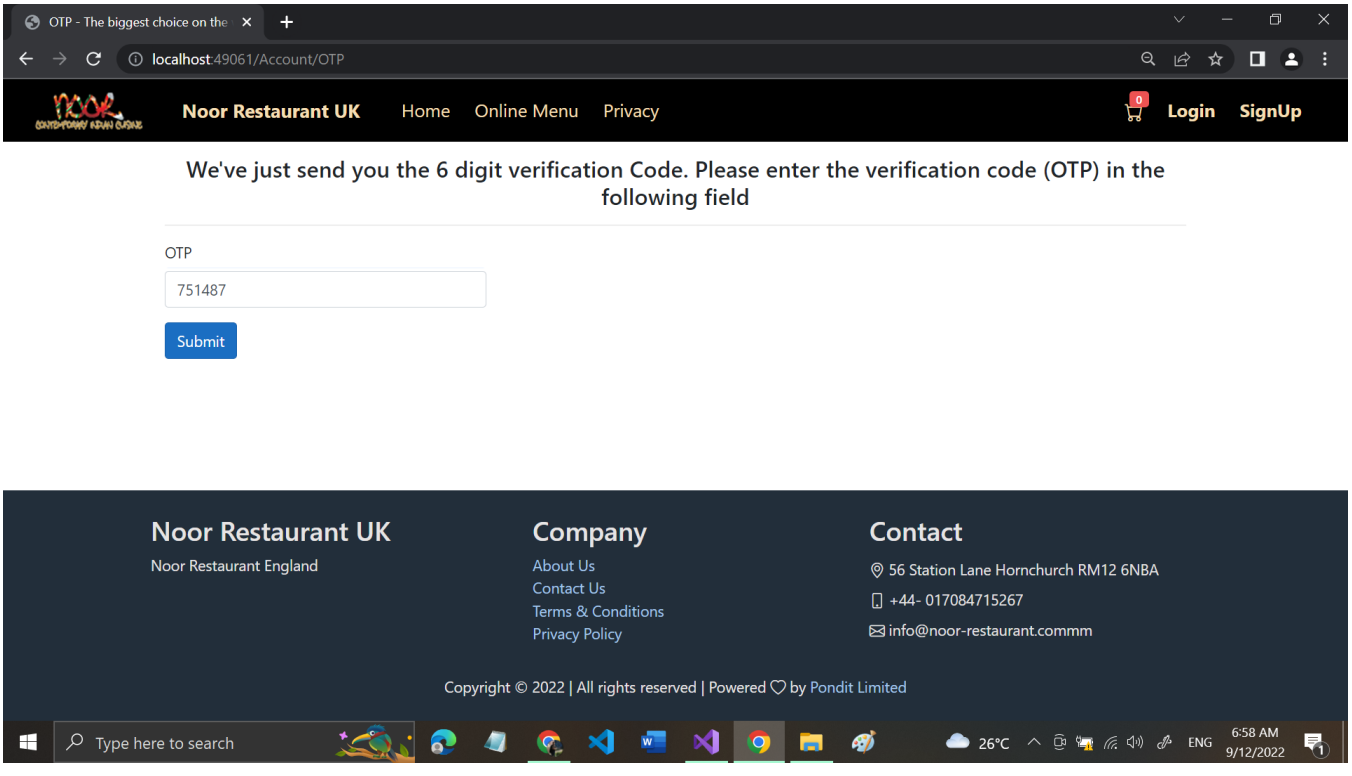
These are Login pages.

After successful login, users can go to the dashboard.

And if the login is unsuccessful, then an error message will be shown.

- Forgot Password:





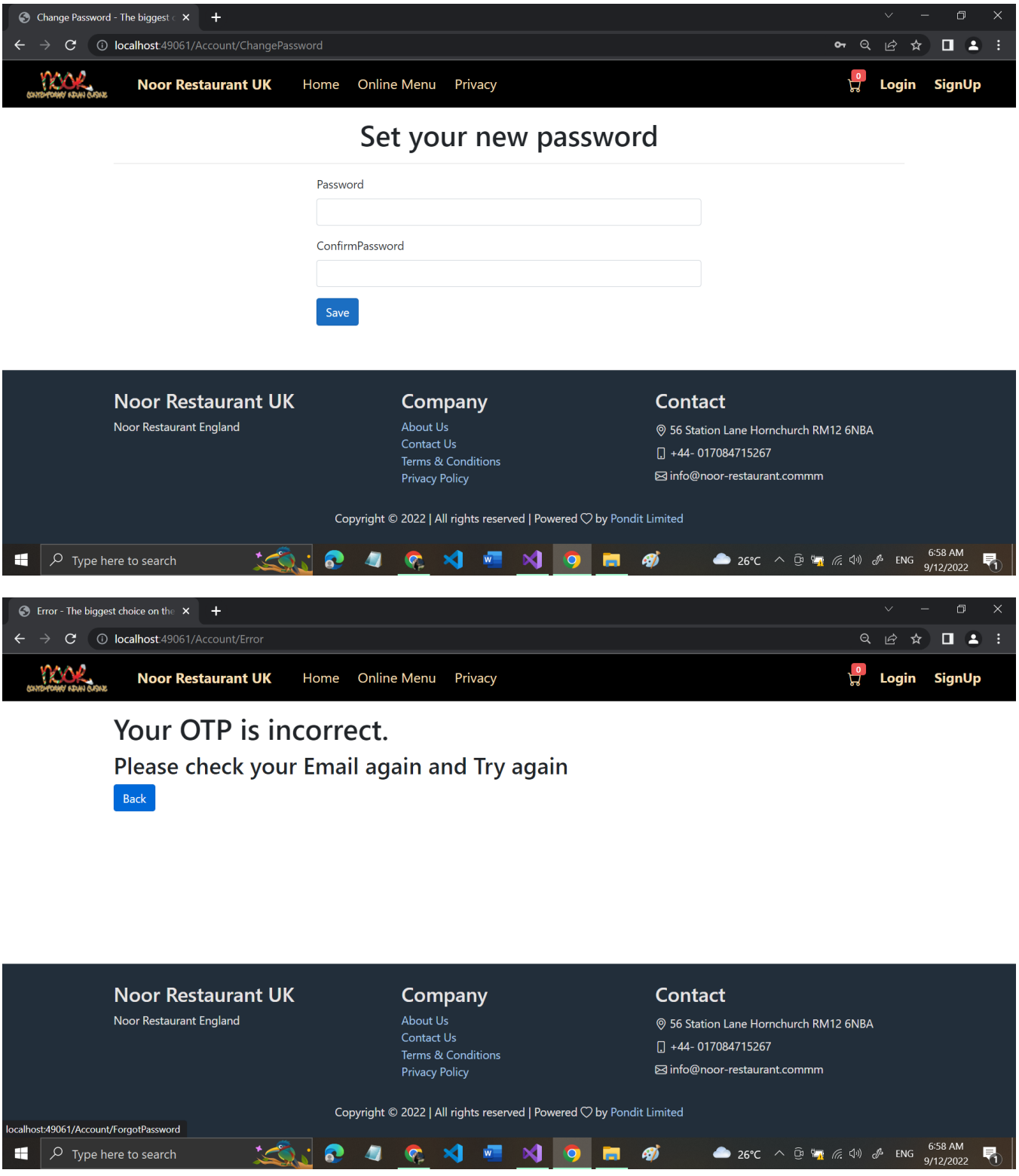


Figure 6.8: Forgot Password Page.

These pages are for the forgot password criteria. At first, users need to give their email addresses and click on the submit button. Then, an OTP will be sent to their email address. Then, they have to give the OTP and submitted it. And then, if the OTP is correct users can change their password. And if the OTP is incorrect, then an error page

will be shown.

- User Dashboard:

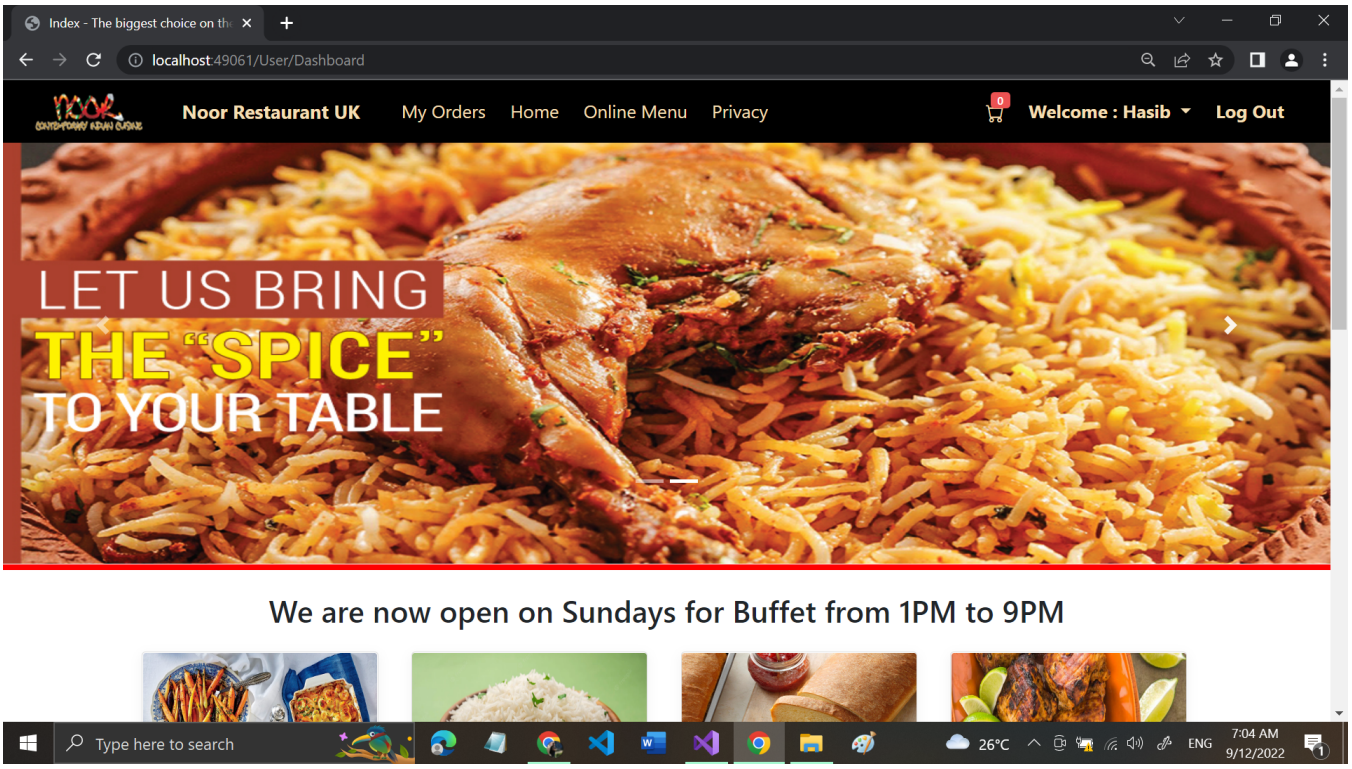


Figure 6.9: User Dashboard.

After successful login, this page will be shown. This page is the same as if the user is not logged in.

But some portions are changed in the navigation bar.

A new navigation item is shown which is my orders.

And also on the right side, the user's name will be shown.

- My Orders:

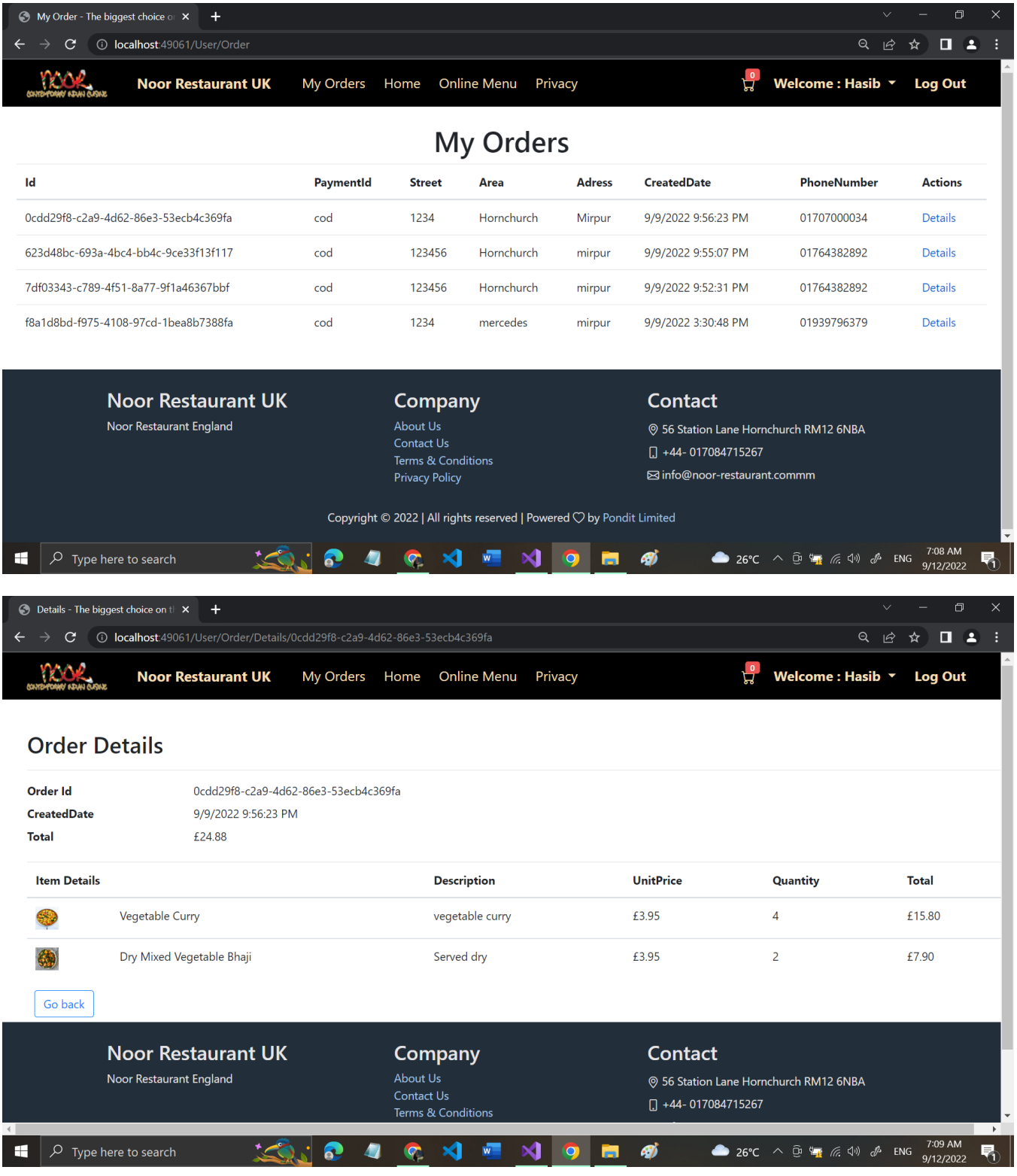
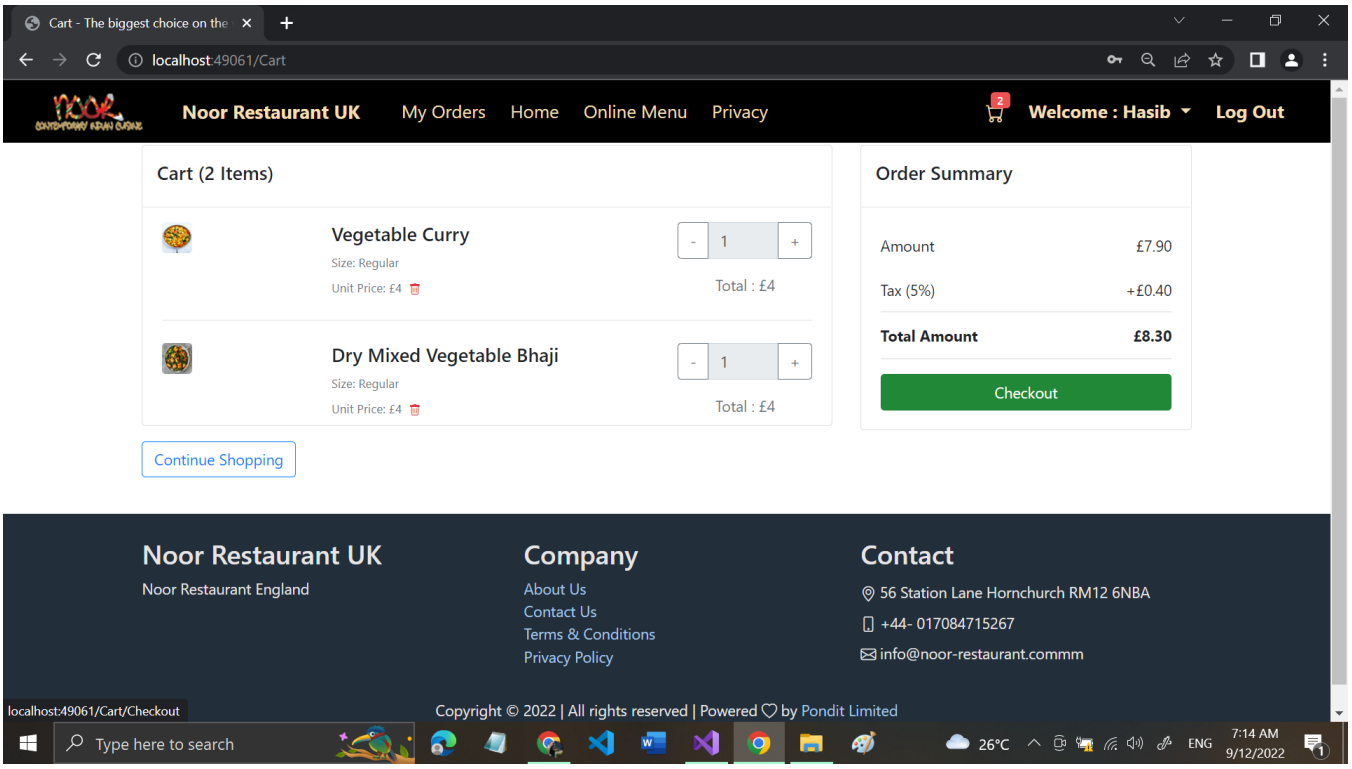
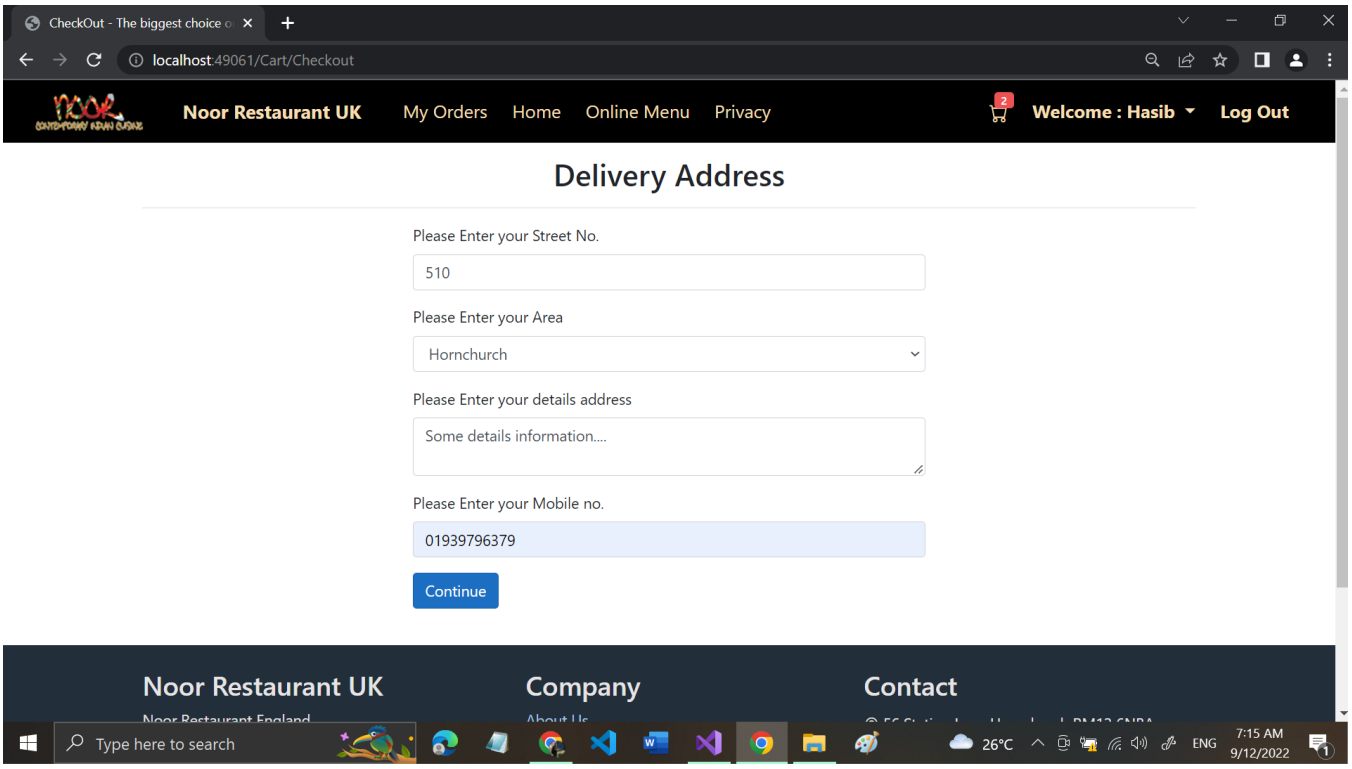


Figure 6.10: My Orders Page.

These are in my orders portion. Some details are shown on the page, and if the user wants to see more details then the user needs to click on the details button, and then the user will be able to see more details.

- Add to Cart and Delivery Address:





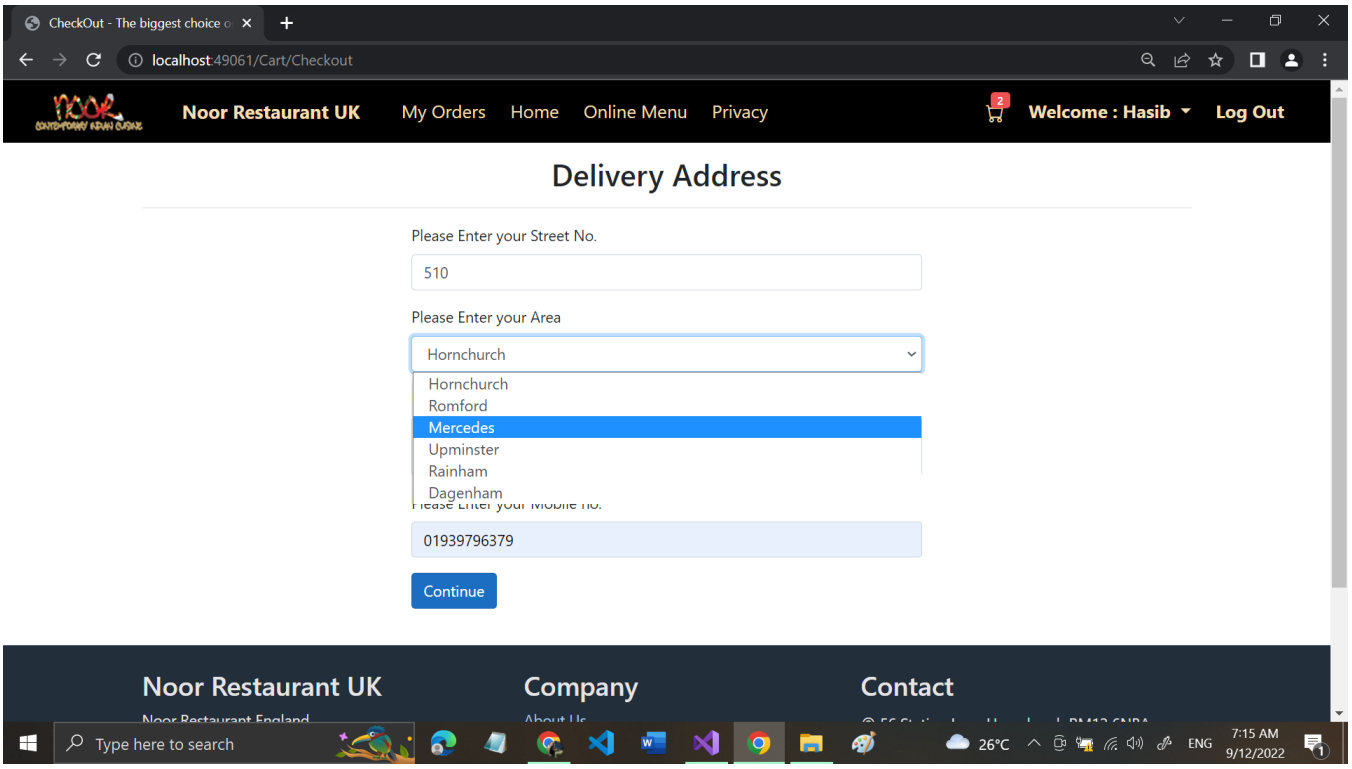


Figure 6.11: Add to Cart and Delivery Address Page.

These screenshots are shown add-to-cart page and the delivery address page.

After clicking the checkout the delivery address page will be shown.

Here, the user needs to give a valid phone number. If the user does not give a valid number then an error message will be shown.

And the user needs to select the area from the dropdown list because the restaurant is only served in those areas.

- Payment:

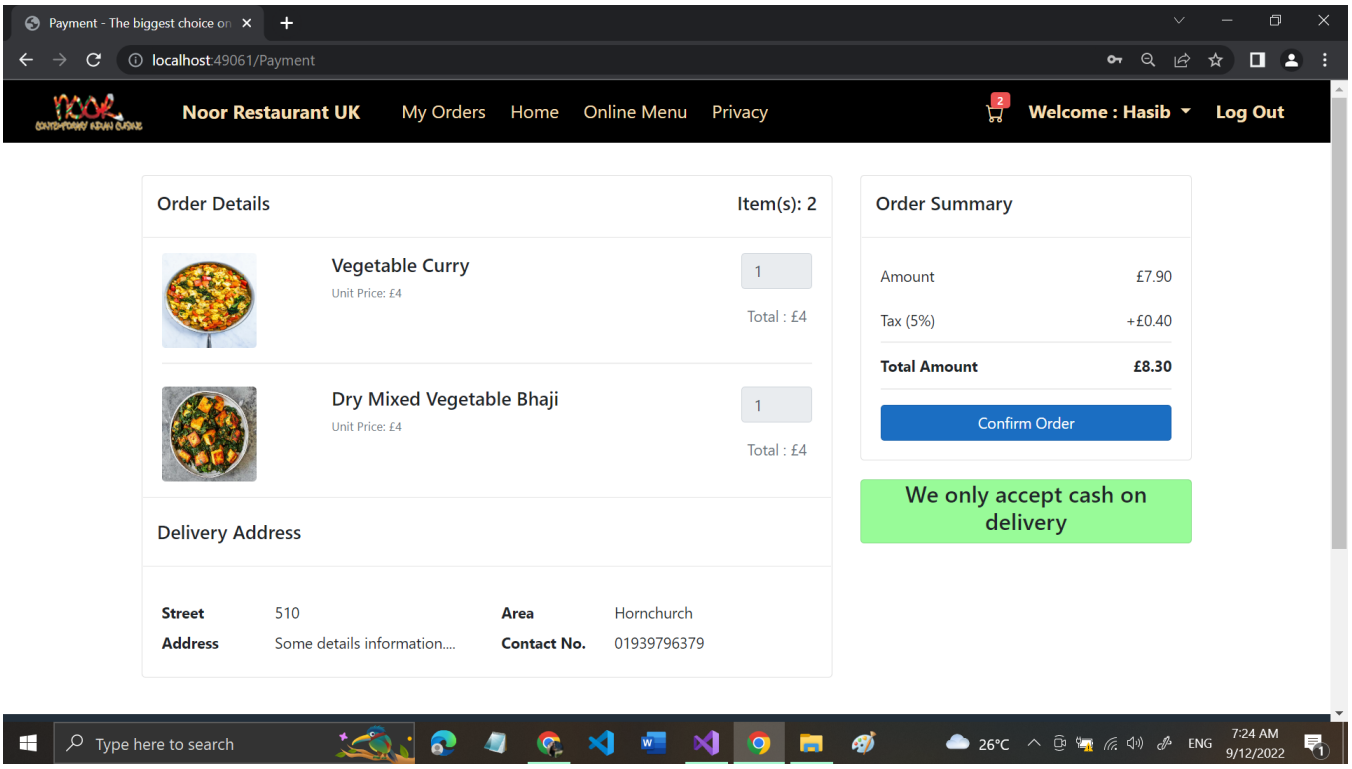


Figure 6.12: Payment Page.

This page is for confirming the order. The restaurant only accepts cash on delivery so there are no other options for payment.

If the user clicks on the confirm order button, then the order will be confirmed.

- Order Confirmed:

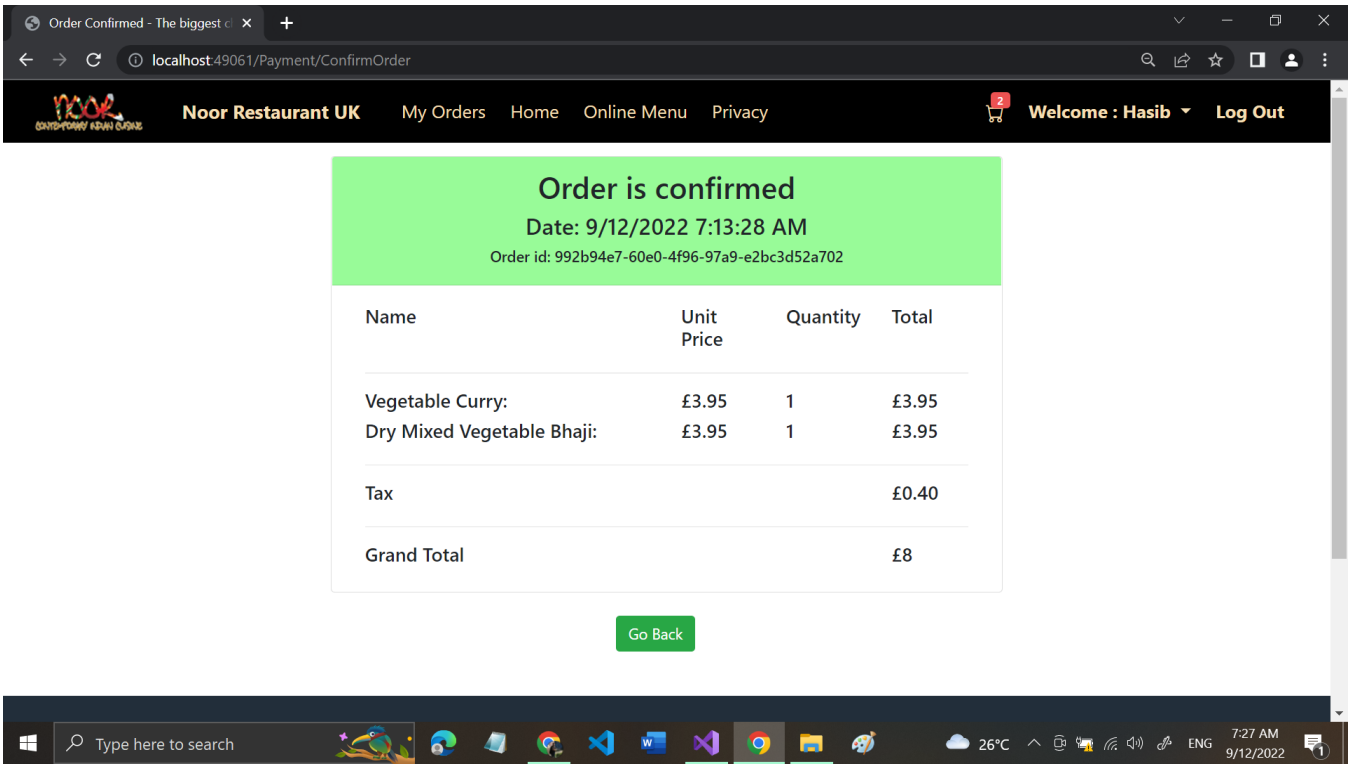
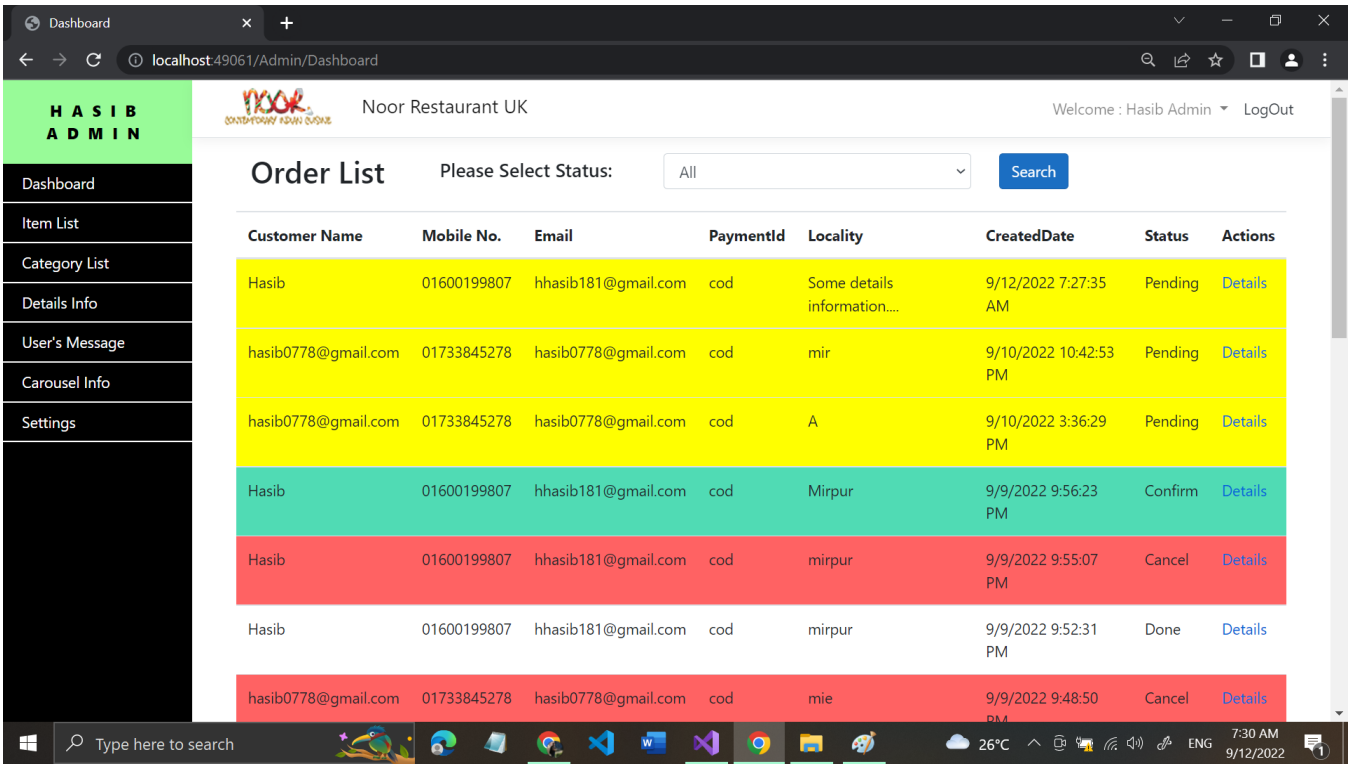


Figure 6.13: Confirm Order Page.

After clicking the confirm order button, the order is confirmed. An email will be sent to the user and this page will be shown.

- Admin Dashboard:



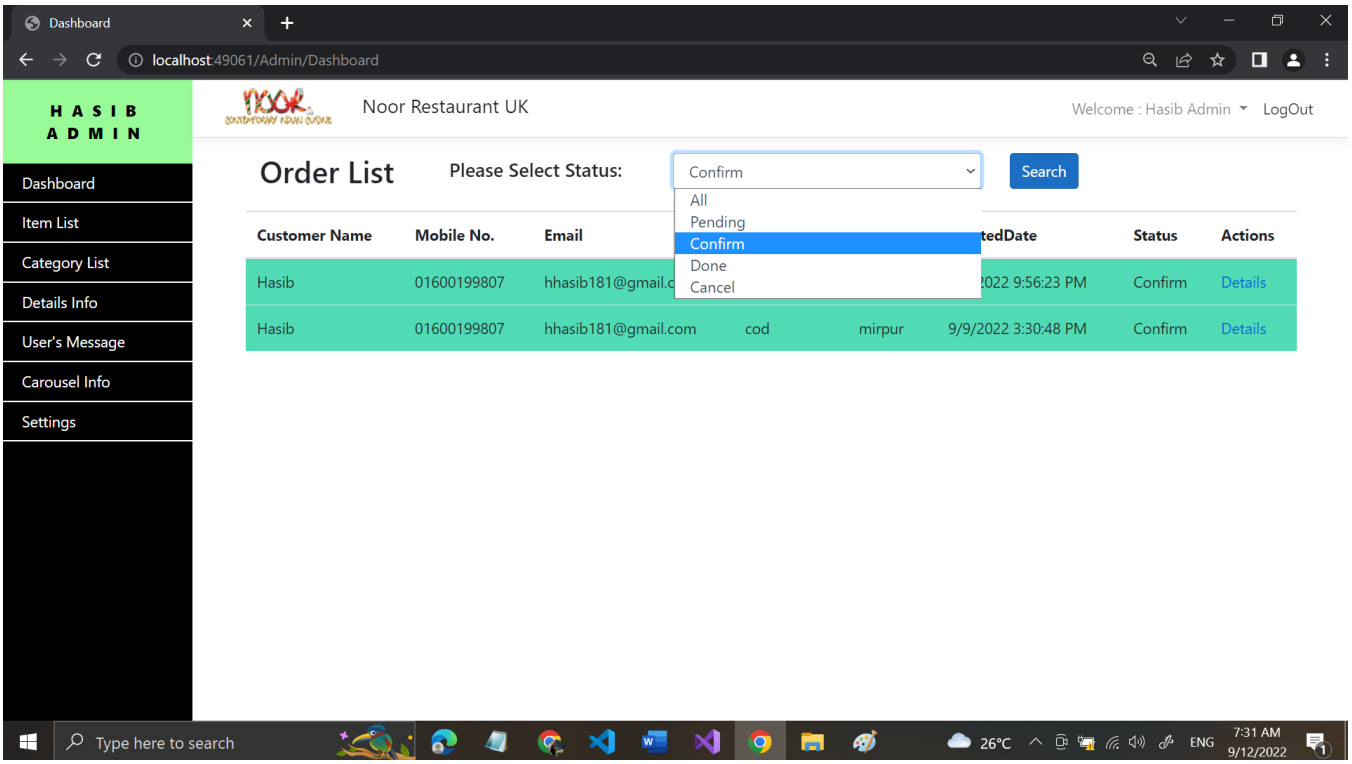
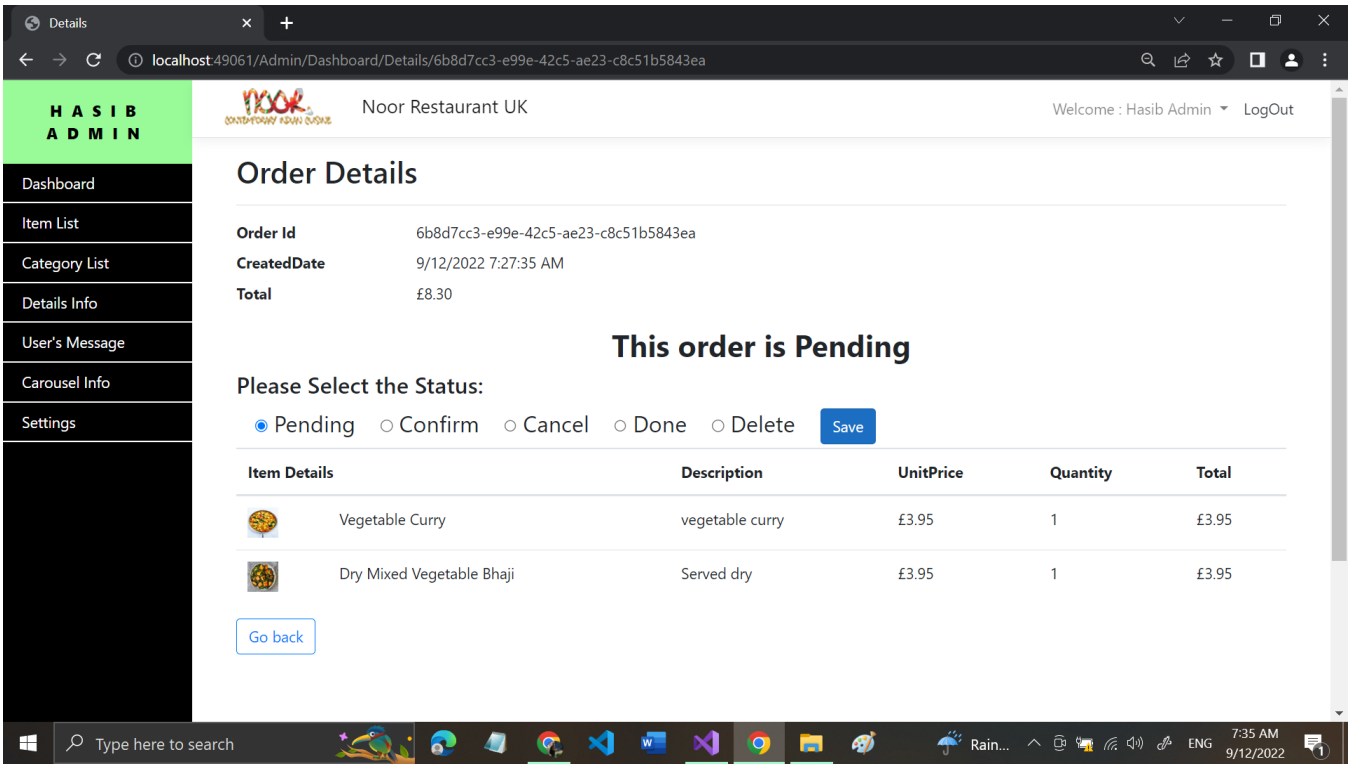


Figure 6.14: Admin Dashboard Page.

These are screenshots of the Admin Dashboard.

In the dashboard, the admin can see the orders. The user can search by selecting the status from the dropdown list.

- Order Details:



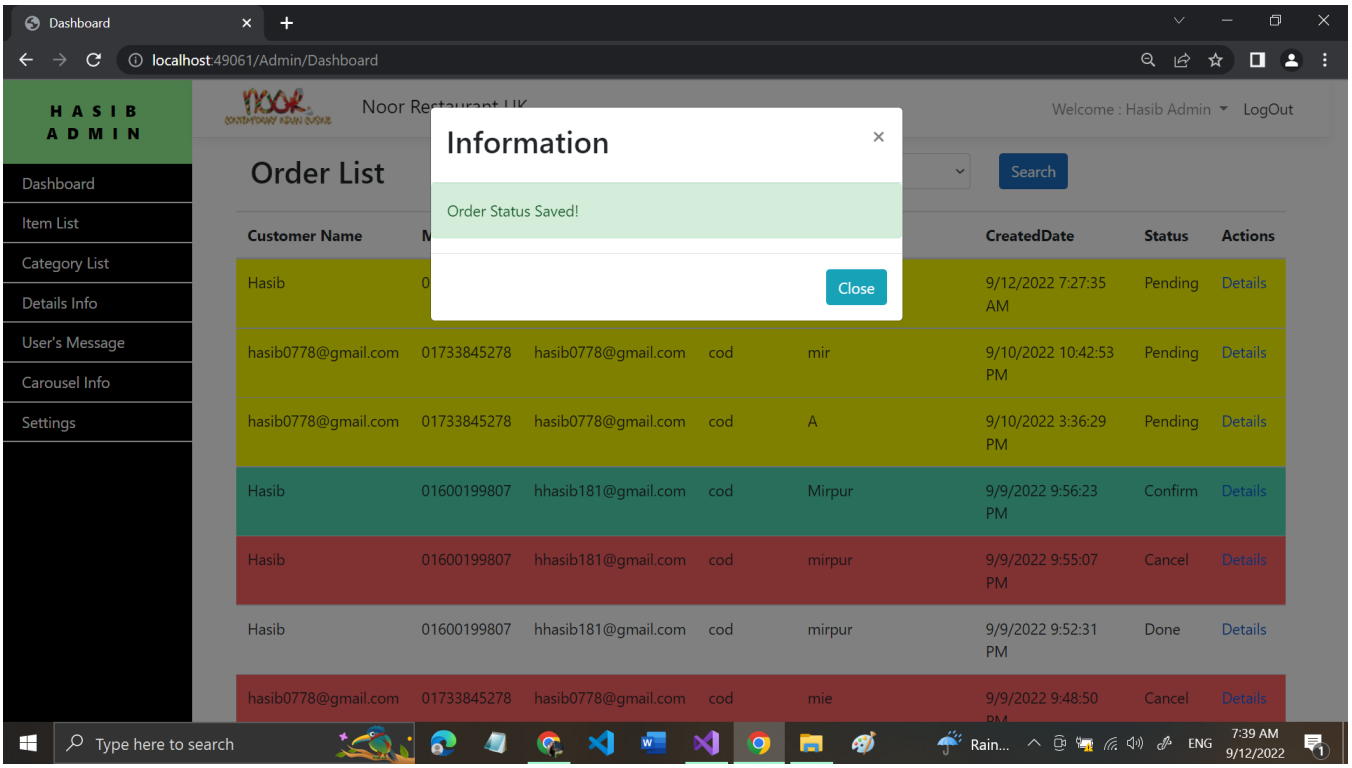


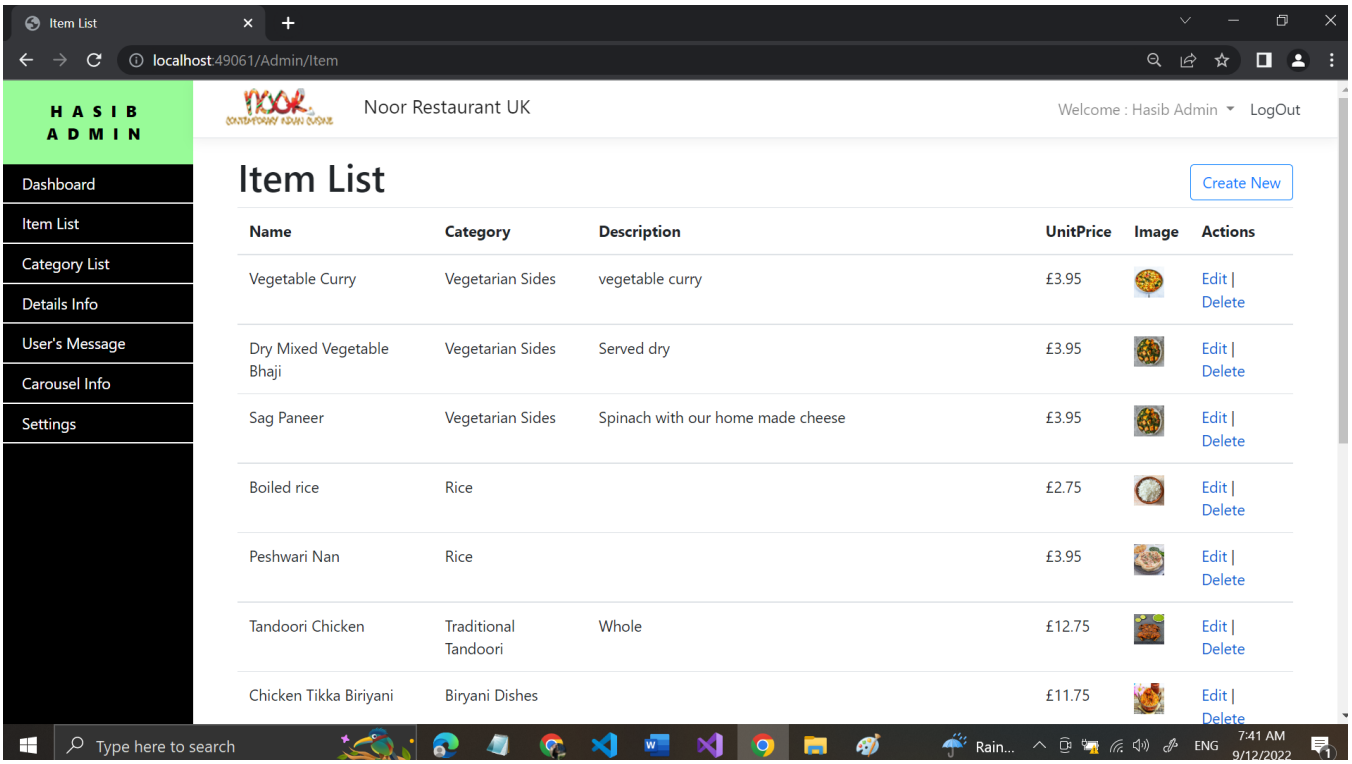
Figure 6.15: Order Details Page.

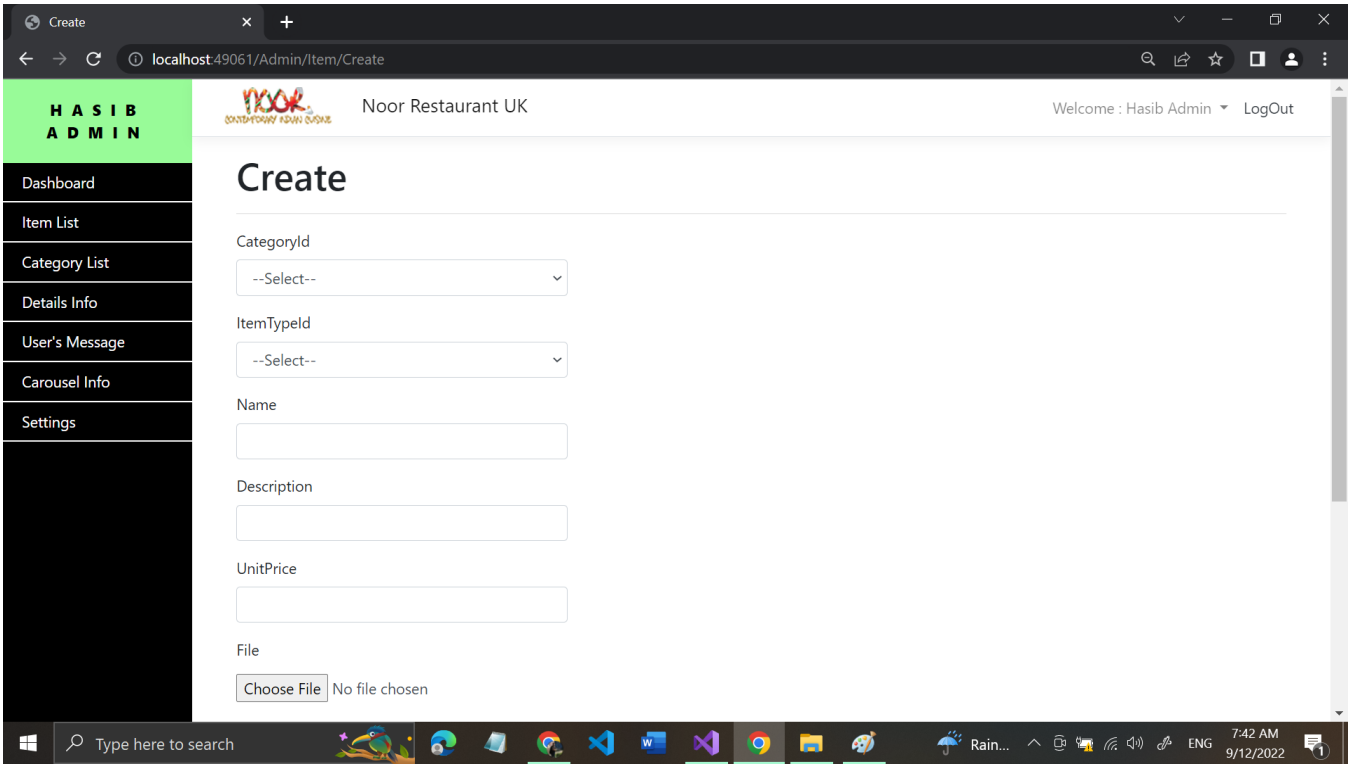
If the admin wants to show more details and wants to update the status then the admin needs to click the details button and then this page will come. From this page, the admin can see more details and also he can update the status. He can confirm the order, cancel the order, and mark it as done.

If the status is updated, then an email will be sent to the user based on the status.

After updating, a success dialog box will be shown to the admin.

- Item List:





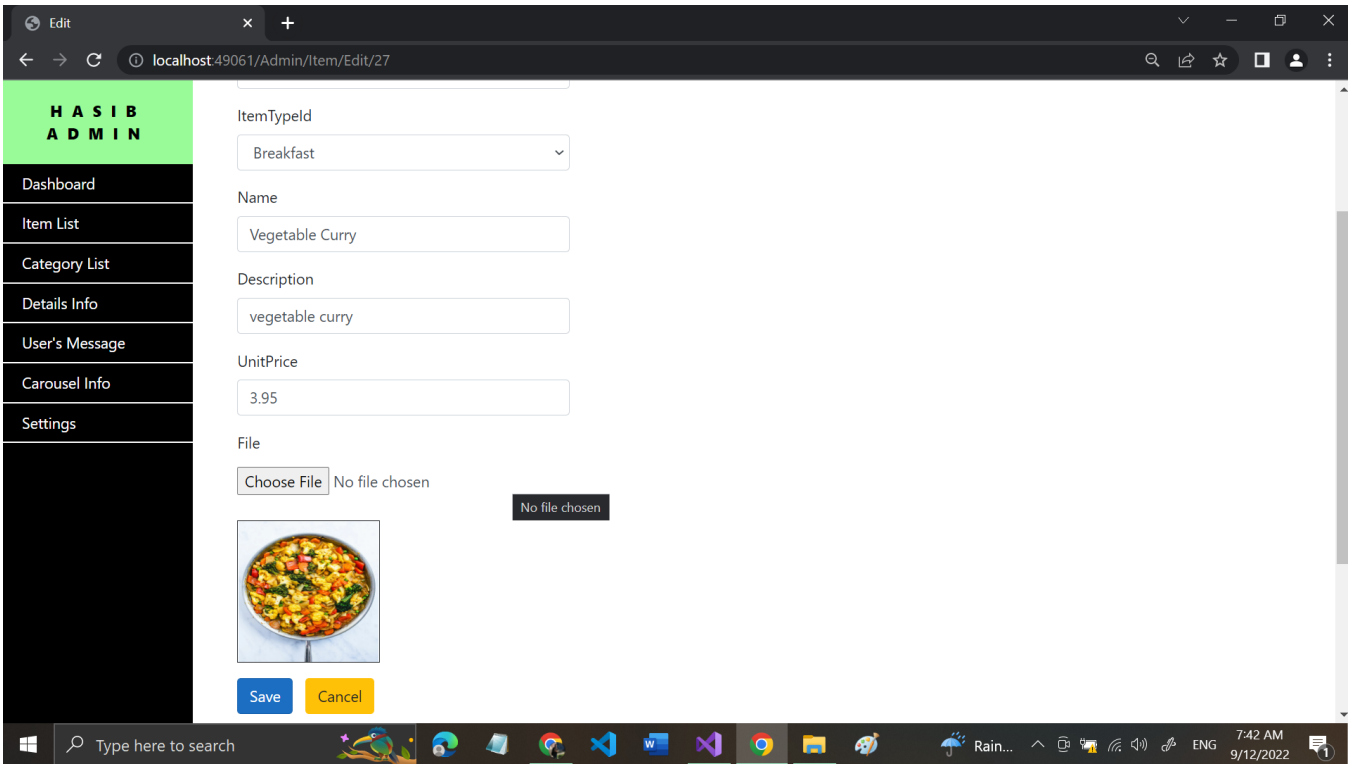


Figure 6.16: Item List Page.

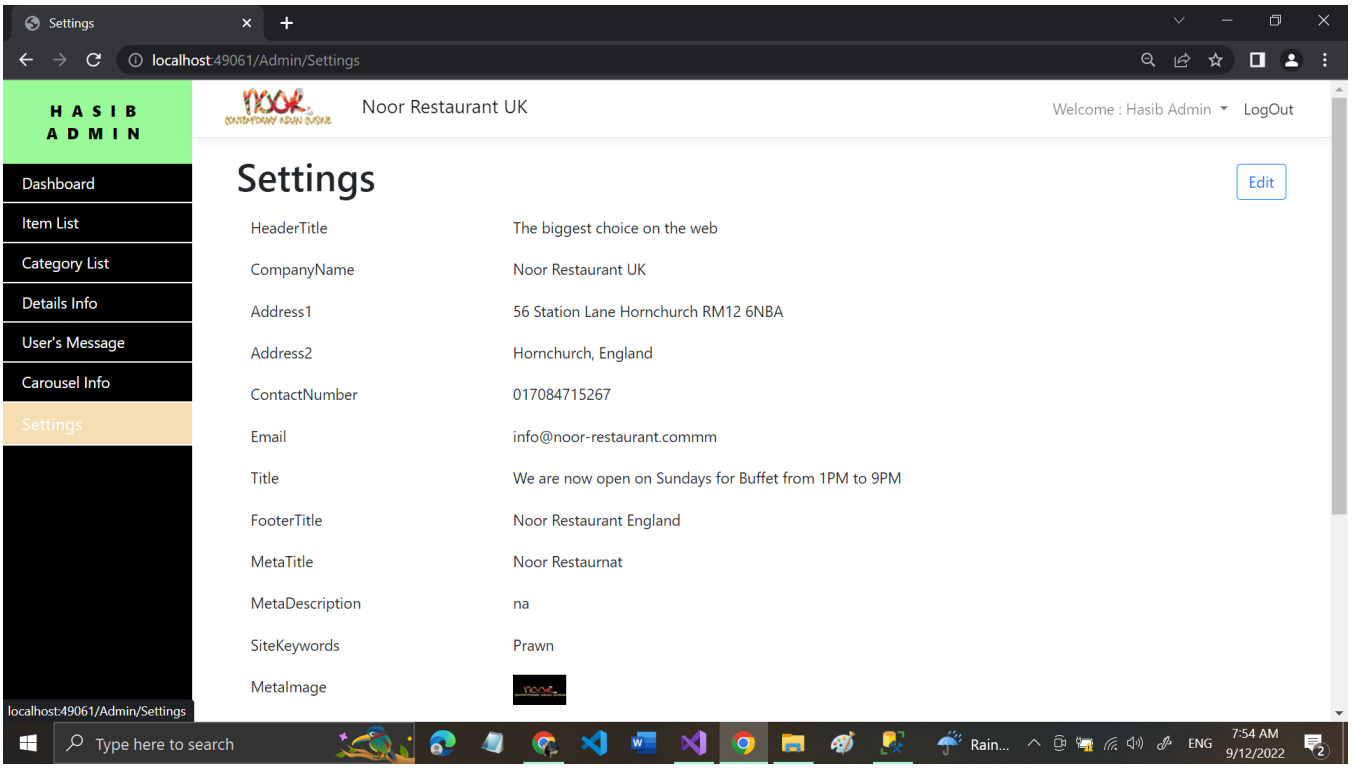
These are for the Item List.

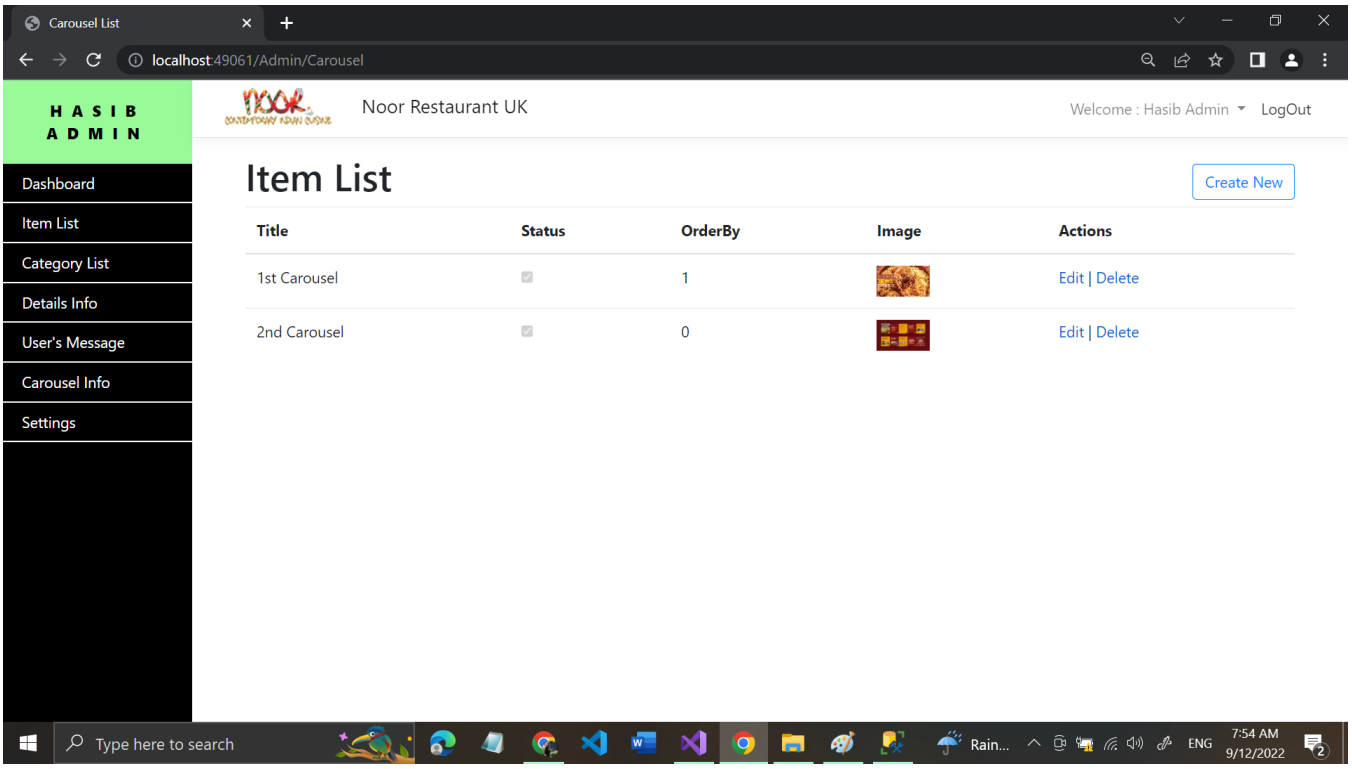
At first, the admin can see the items that are already added. And the admin can create a new item, edit any items and delete any items.

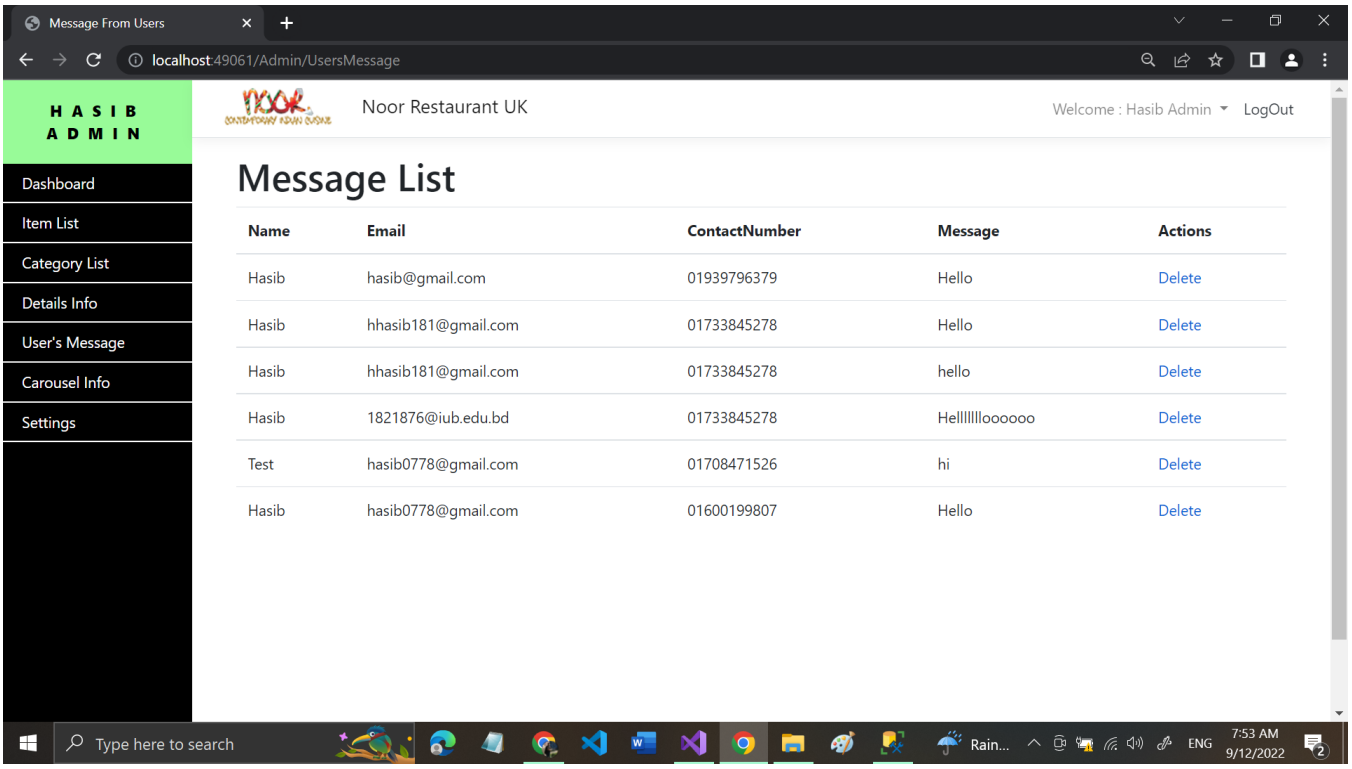
In the Carousel List, Details Info, and so on, the sections are almost the same as the Item List section.

The admin can create, edit and delete anything in most cases.

- Others sections of the Admin:


Settings
localhost:49061/Admin/Settings
HASIB ADMIN
Dashboard
Item List
Category List
Details Info
User's Message
Carousel Info
Settings
Noor Restaurant UK
Welcome : Hasib Admin
LogOut
Settings
Edit
HeaderTitle
The biggest choice on the web
CompanyName
Noor Restaurant UK
Address1
56 Station Lane Hornchurch RM12 6NBA
Address2
Hornchurch, England
ContactNumber
017084715267
Email
info@noor-restaurant.commm
Title
We are now open on Sundays for Buffet from 1PM to 9PM
FooterTitle
Noor Restaurant England
MetaTitle
Noor Restaurnat
MetaDescription
na
SiteKeywords
Prawn
MetaImage
localhost:49061/Admin/Settings
Type here to search
Rain...
ENG
7:54 AM
9/12/2022


Carousel List
localhost:49061/Admin/Carousel
HASIB ADMIN
Dashboard
Item List
Category List
Details Info
User's Message
Carousel Info
Settings
Noor Restaurant UK
Welcome : Hasib Admin
LogOut
Item List
Create New
Title
Status
OrderBy
Image
Actions
1st Carousel
1
Edit | Delete
2nd Carousel
0
Edit | Delete
Type here to search
Rain...
ENG
7:54 AM
9/12/2022



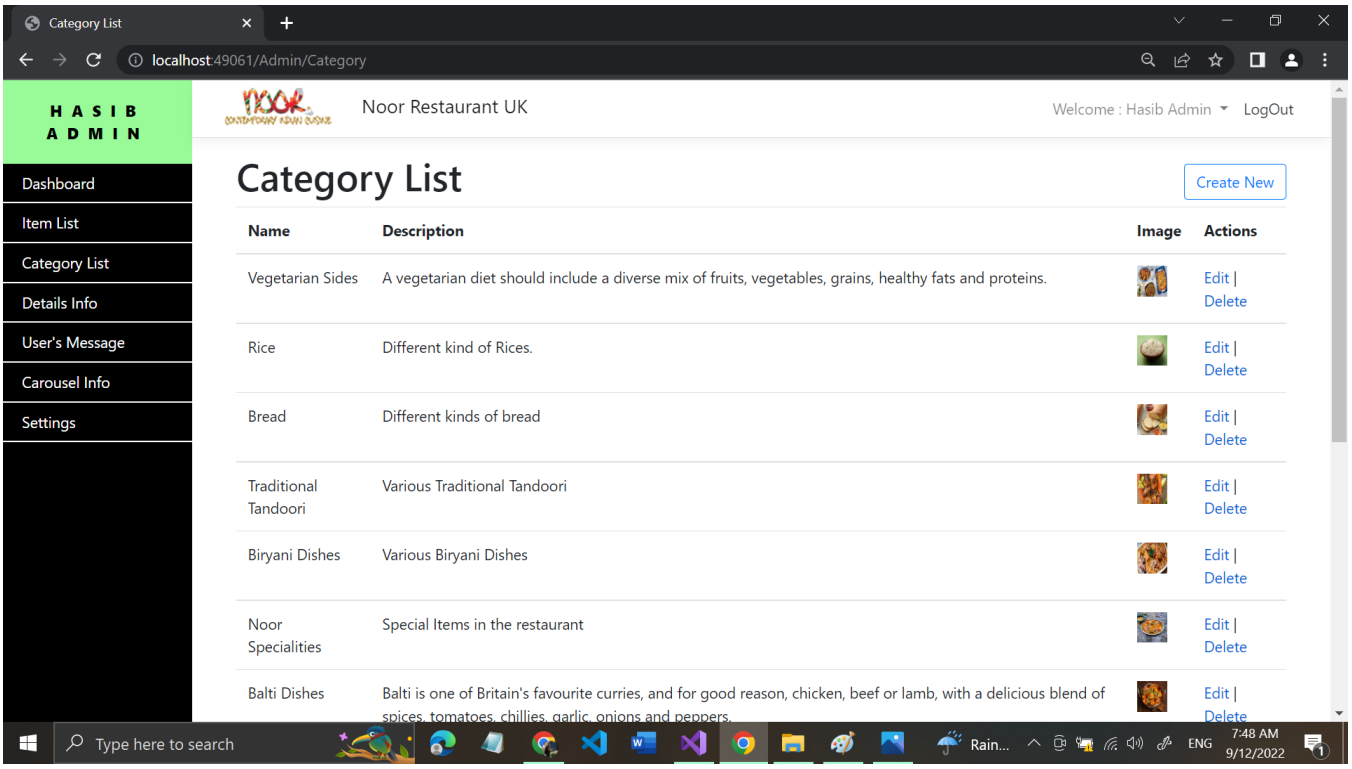


Figure 6.17: Other Pages.

In Settings, the admin can see and update the information about the restaurant.

In the Carousel Info section, the admin can see, create, delete and update the carousel.

In the User's Message section, the admin can see and delete the messages which are received from the users.

In the Details Info section, the admin can see, create and edit the info on the about page, contact page, privacy page, and so on.

And in the category list section, the admin can see, create, update and delete the category information.

This is the overall result. In these 3 months, we built this website for our client Noor Restaurant. Some works are not done till now. But almost all the major functionalities are done till now.

Chapter 7

Project as Engineering Problem Analysis

7.1 Sustainability of the Project/Work

One of the most significant issues in web application software development has been the development of long-term software. The goals for sustainable development are to meet current demands while protecting the viability of shared systems and the environment so that future generations' ability to satisfy their own needs is not compromised. Maintenance of the system is done regularly to keep the program more long-lasting. Everything has become more digital in its method. Considering people's current risky situation and online dependency, it is understandable that the “Online Food Ordering System" is highly sustainable.

7.2 Social and Environmental Effects and Analysis

Though the Online food ordering system is only used for food ordering from a specific restaurant, it may have some social effects. With this system, some activity of users and restaurants are kept on record.

Admin can easily add, update and delete the food items and categories. And users also easily can order food online. All the information is stored safely in the database. The password is stored with a proper encryption method so that any hacker can't able to see the password. Users or restaurants do not have to worry about data loss because the database will have a backup. As for the environment, while using this system, we do not have to use lots of paper like before. So, it is a great save of document as we know that seventeen billion cubic feet of trees are destroyed every year, and 60% of this is used for making paper. So, using this system has a positive impact on the environment.

7.3 Addressing Ethics and Ethical Issues

The system will be fully secured for all users. No personal information will be leaked from the database. We will try to give the maximum level of security. Every user's password will be encrypted so that the admin cannot know the password. Only users can change access to their dashboard.

Chapter 8

Lesson Learned

During my internship program, I have learned many things. I joined as a full-stack developer. And it is hard for me to do all the work as a beginner. I have to learn the ASP.NET framework for the project. This is my first time to do work in any company. From the company, I learned a lot of things. I learned how to communicate with others in a company. And I hope that this learning will help me a lot in the future.

8.1 Problem s Faced During this Period

Some of the problems that I have faced during this Internship Program are mostly managing time properly and scheduling work and maintaining deadlines. It wasn't easy developing the software, learning, and adapting to the new technology parallelly at the same time. In addition to the system planning, project management, system analysis, and system design, a lot of proper thinking, analysis, and best judgment call were necessary to meet deadlines, balance work, and make an overall good and solid system plan.

8.2 Solution of those Problems

I need to work hard to overcome the problems. Since I do not have so much idea about ASP.NET, so I need to learn that within a short time. So, In my office time as well as when my off time, I need to learn this framework. And I do need to put a lot of effort into system planning, project management, system analysis, and system design. Since I learned these things in the course, but in practical life, how to use these is a very complex thing. So, I need a very clear idea about these things, so I had to study more.
And my supervisor also helped me with my work. If anything I don't understand properly, then my supervisor explains this thing.
Despite these ups and downs, finally, I completed my internship at Pondit Limited and made the project which is the Online Food Ordering System for Noor Restaurant.

Chapter 9

Future Work & Conclusion

9.1 Future Works

The work does not stop here. In the future, we will add more features to this application like-

- More admin monitor: It is most helpful for the admin if the admin can monitor different things such as what food items are sold most, how many online orders are coming, and so on. It will be helpful for the restaurant management.
- New feature for the users: We can give the users more features such as giving ranking to the food, giving comments about the food, and so on. Through this, other users get more information.
- Information archiving: A system that stores all a user's data should have an archiving system so that retired, suspended, or fired users are archived rather than entirely removed from the system.

9.2 Conclusion

During the internship, I worked on a web application called Online Food Ordering System for Noor Restaurant. The restaurant gives the work to Pondit Limited where I do my internship. This online food ordering system is designed to save time, and work well for the users. To improve the experience for users, and the restaurant, this system is implemented. It has been an excellent opportunity for me to work in Pondit Limited as a full-stack developer. The internship program here was three months, and the guidance here has been my first step in information technology. My experience was full of knowledge about the development process. I have learned how to manage the different requirements for the software and the best approach to developing it. This program gave me a clear idea about professional life as a full-stack developer, what I must face, and how to manage those situations. During the internship, I tried to cover my weakness in web development and tried to become a better web developer.

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An Undergraduate Internship on Online Food Ordering System

By

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Summer, 2022

Consent Form

The student modified the internship final report as per the recommendations made by his/her academic supervisor and/or panel members during final viva, and the department can use this version for archiving.



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