

ISAD251 Application Design Document and Application Fact Sheet

Ho Ka Shing, Douglas Student Ref. 10679452

Links of the Application for reference

GitHub repository link:

<https://github.com/dram001/CW-Douglas-Pub>

YouTube Demo Video (1080p):

<https://youtu.be/L6elpiU0yxE>

RESTful API Middleware for Items:

<https://localhost:44300/api/itemsapi>

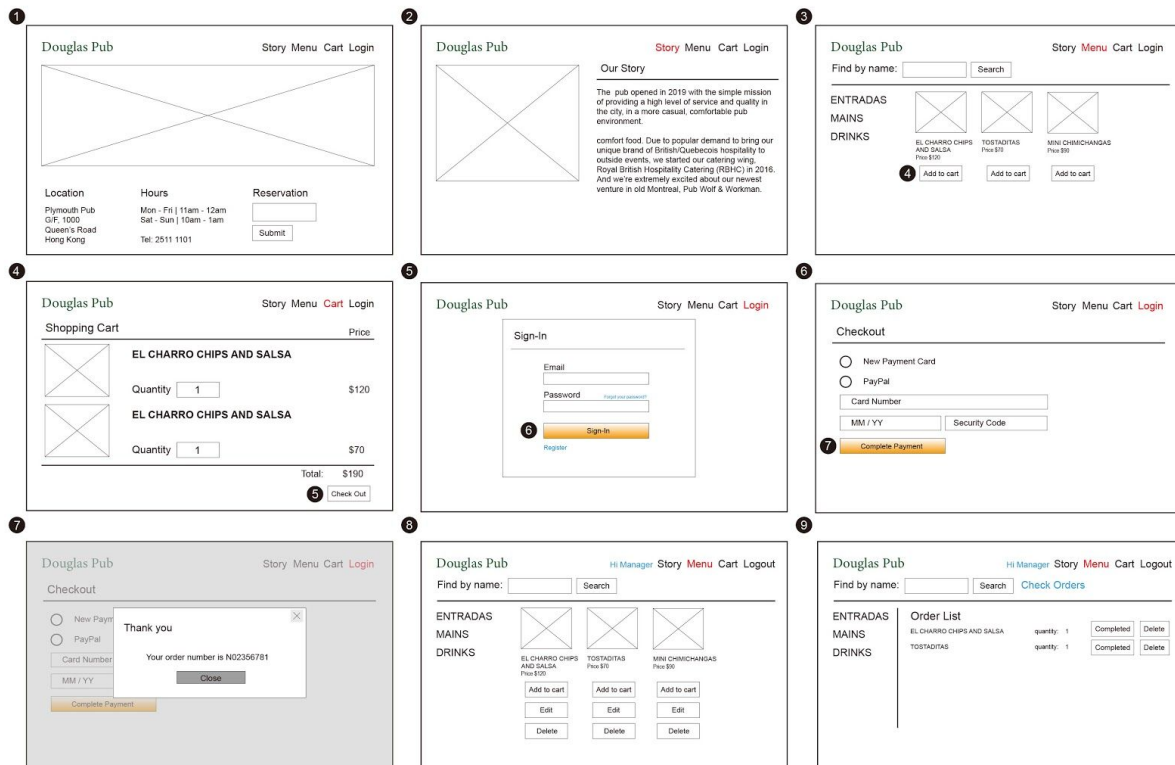
RESTful API Middleware for Orders:

<https://localhost:44300/api/ordersapi>

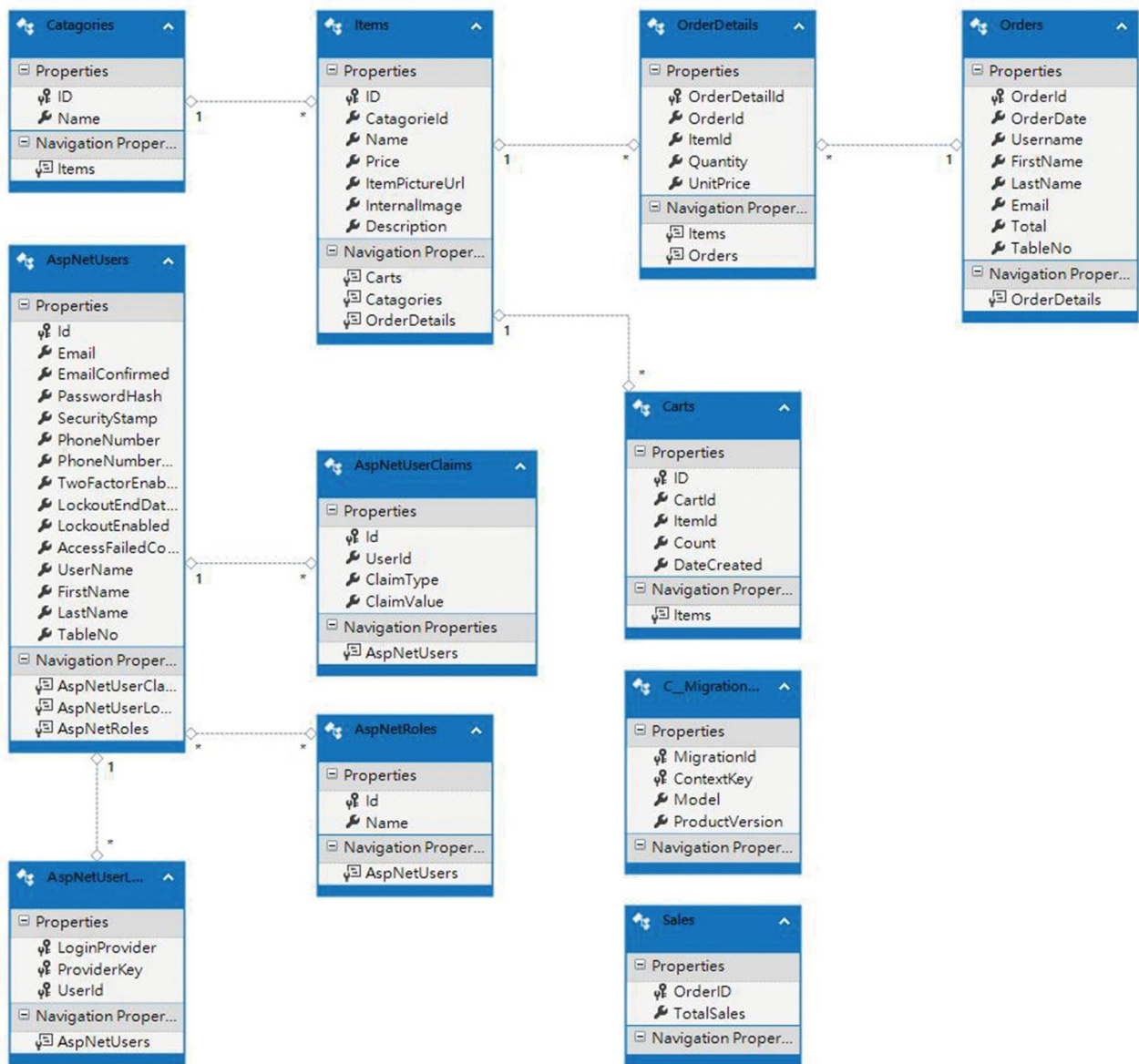
1. Application Design Document

Storyboard

Douglas Pub Storyboard

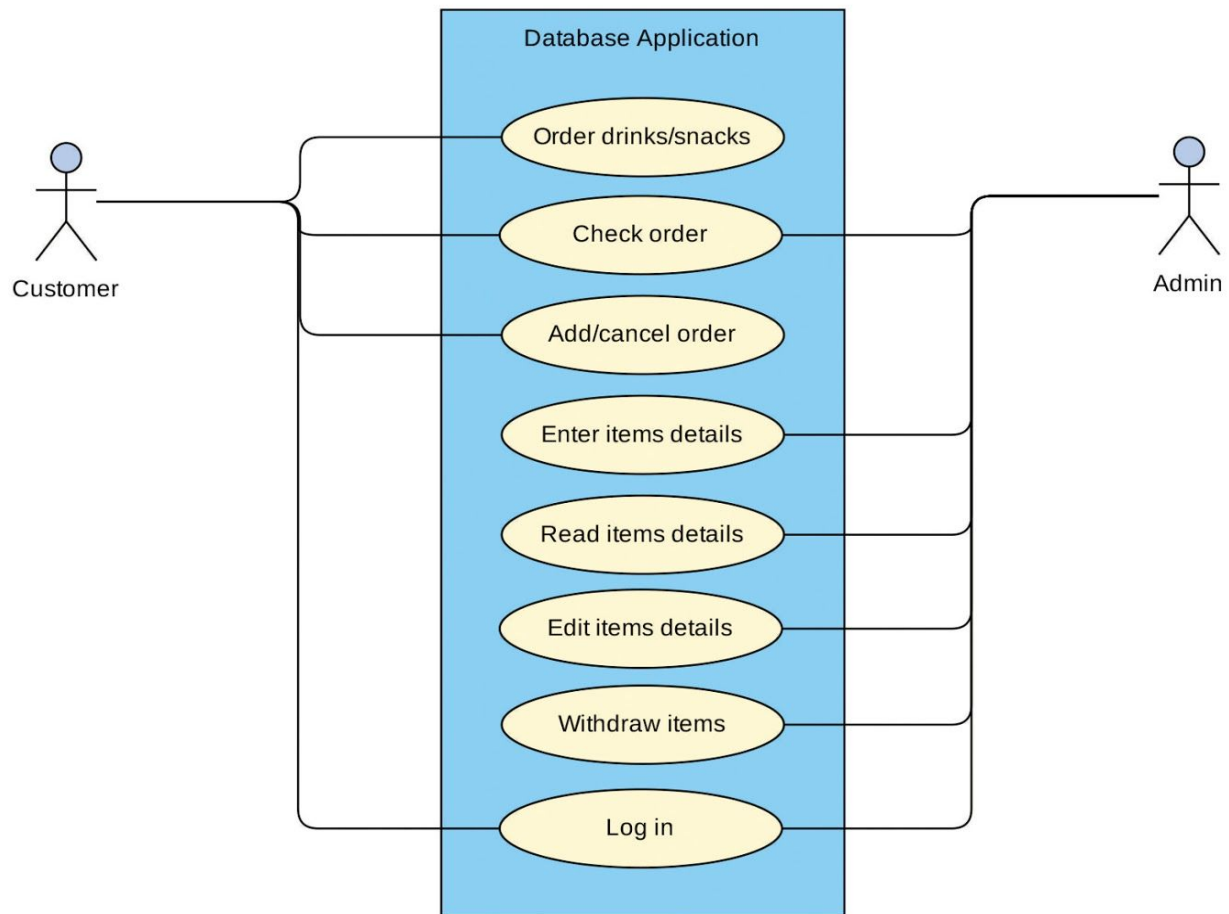


2. Entity-Relationship diagram

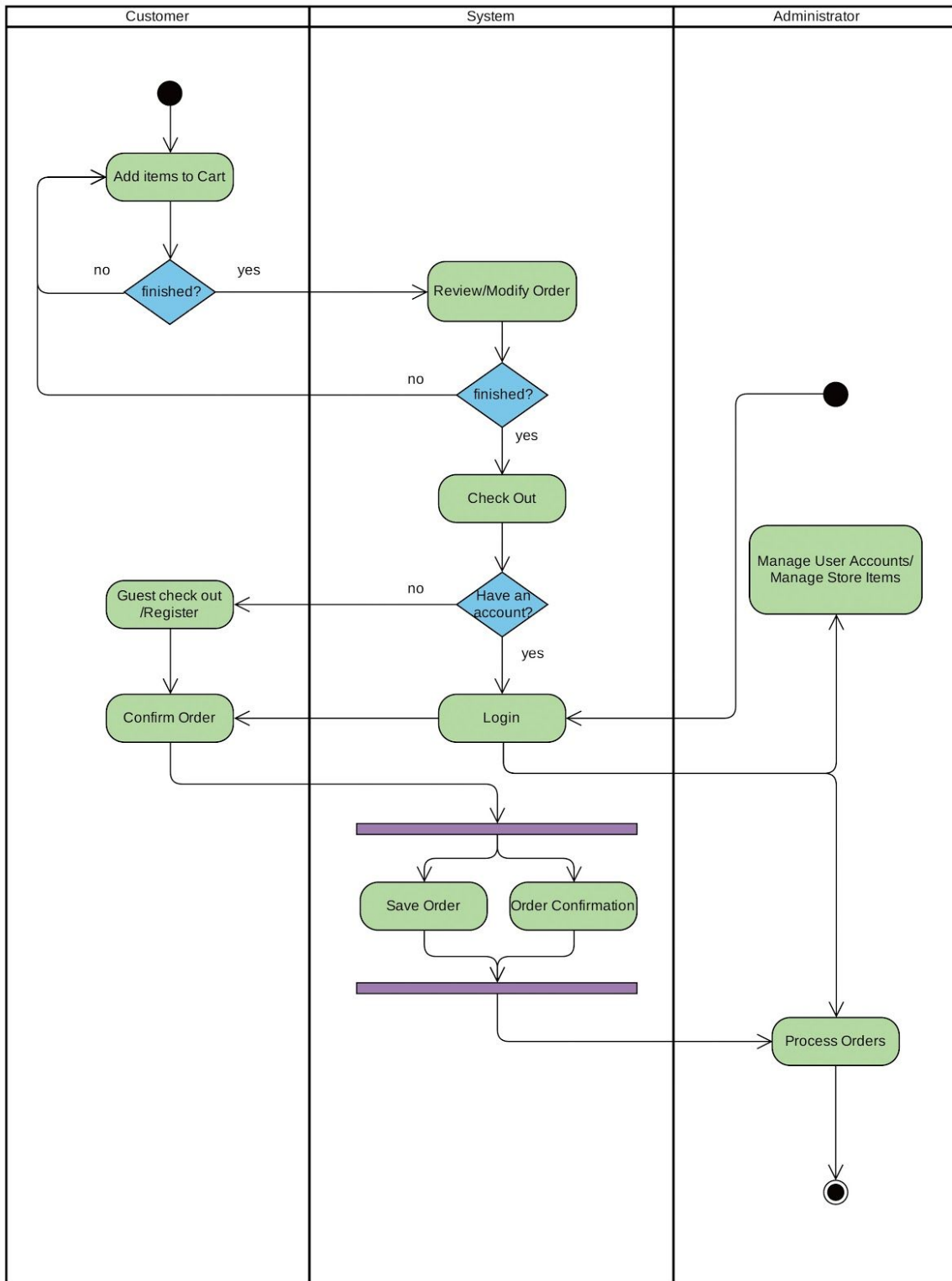


3. UML diagrams

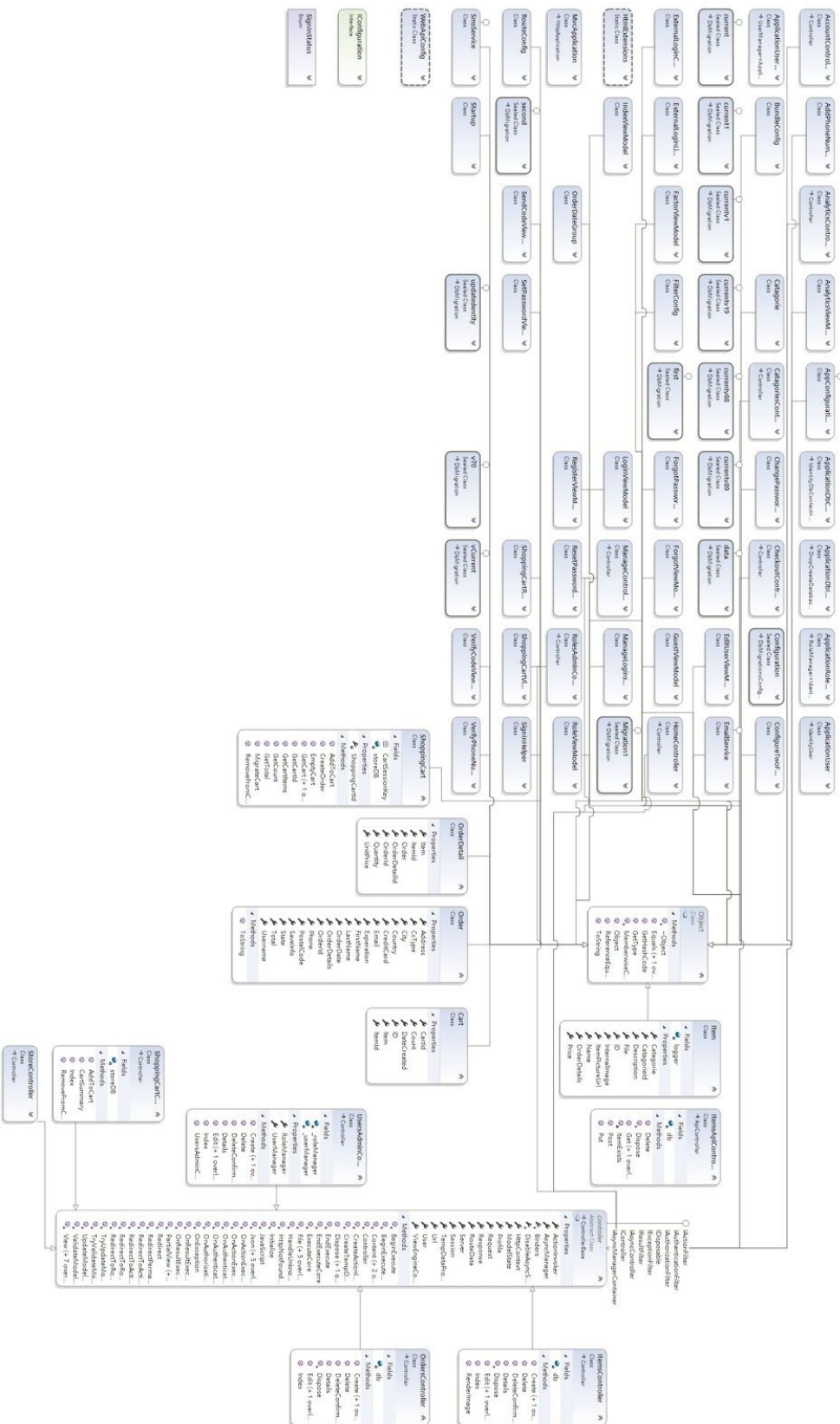
- Use case diagram



▪ Activity diagram



- Class diagram (a clear image is included in GitHub)



4. Settings

Please first run the package manager console to Seed the Database:

Update-database

Please run the sql (included in the GitHub SQL file folder) for database food images initialization:

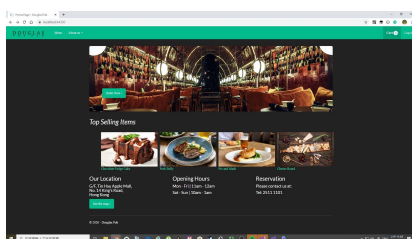
```
1) select New Query at Server Explorer
2) run the sql queries (Please see the sql folder and revise the drive of the
suitable path *D:\):
*****
UPDATE  dbo.Items
SET  InternalImage=(SELECT * FROM OPENROWSET (BULK
N'D:\github\ISAD251-coursework\DougPub2\Content\img\pork-scratchings.jpg',
      SINGLE_BLOB)
AS InternalImage)
WHERE ID=1 ;
*****
Etc.
```

Admin login

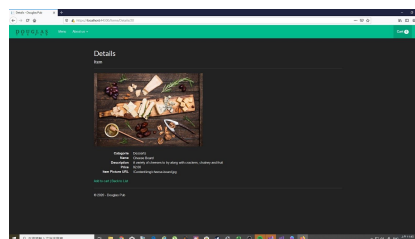
user: admin@gmail.com

password: Admin@123

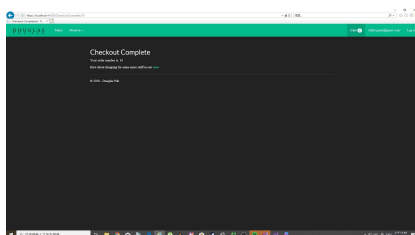
5. Tested with different browsers



Chrome

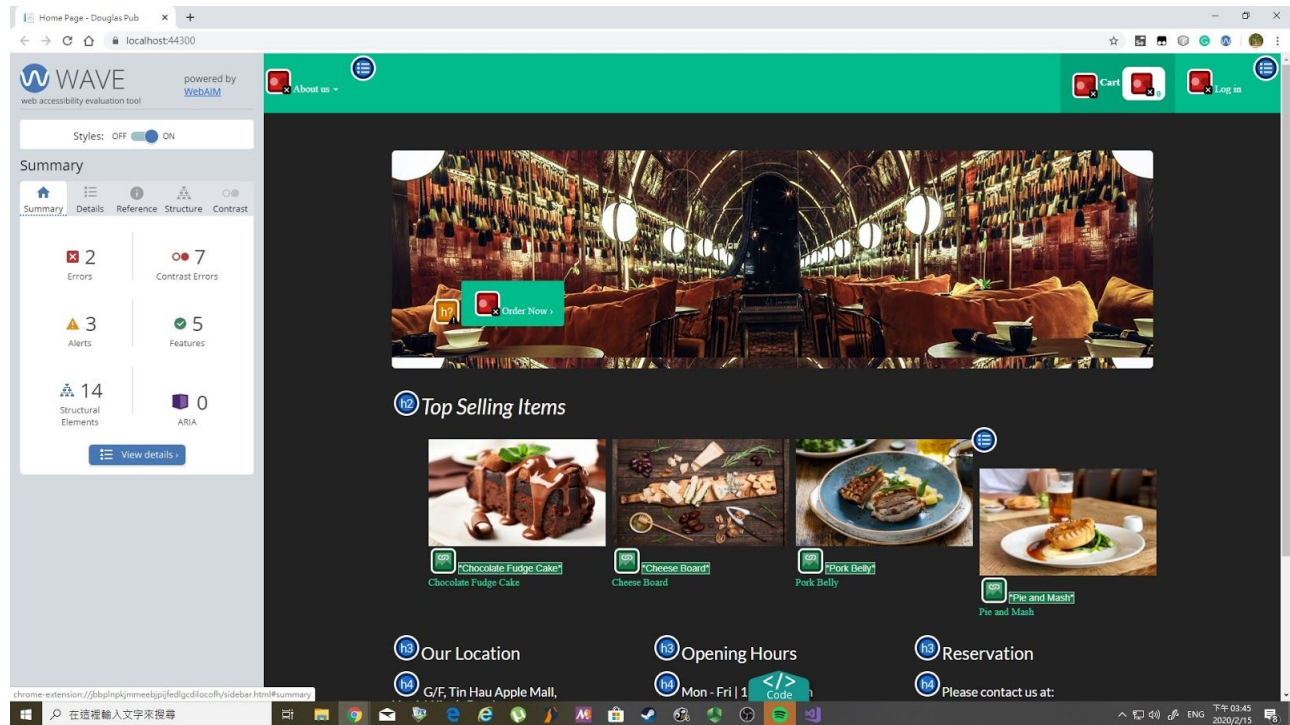


Firefox



Internet Explorer

6. Tested with the WAI guidelines



- The application follows some key features of the W3C Web Accessibility Initiative (WAI) Guidelines and tested with WAVE web accessibility evaluation tool.
- According to the Hong Kong Office of the Government Chief Information Officer, the websites need to be accessible due to social responsibility, legal responsibility - “The Disability Discrimination Ordinance (Cap 487)”, access to hidden markets, rank more prominently in search result and lower costs.
- The results showed that this web application implements the key features of the web accessibility guidelines including linked image with alternative text, using structural elements and form label. However, there are contrast errors for the low contrast of the navigation bar and the order now button.

7. Peer review

Peer Review carried out by: Or Wang Chi, Christ

Date: 09 Jan 2020

Task conducted:

As a customer I wish to order a drink/snack. I want to see what I have ordered and modify it before I check out.

Was the task easy to carry out?

The task is very easy to carry out due to the clear interface and it is similar to our daily online shopping experience. I just need to do a few steps to complete my task.

Did you encounter any errors?

There is no error encountered.

Did the author have to explain how to use anything?

No explanation is needed. Easy and simple.

Did you gain any inspiration for your own practice? (If so what?)

Yes, I am very pleased with the clear website layout design and the selection of the food photos. There are varieties of foods for customers to choose and it makes me really want to order food from this pub.

What constructive advice would you give the author for presenting their work/code in future?

As a walk-in customer, I don't want to create a new user account for ordering food. It is better to provide a guest account for easy ordering.

The constructive comments I made to them:

I suggested that they can also refer to the web accessibility guidelines provided by www.ogcio.gov.hk in order to compare the local requirements and explain more on how to implement them.

Feedback acquisition and actions:

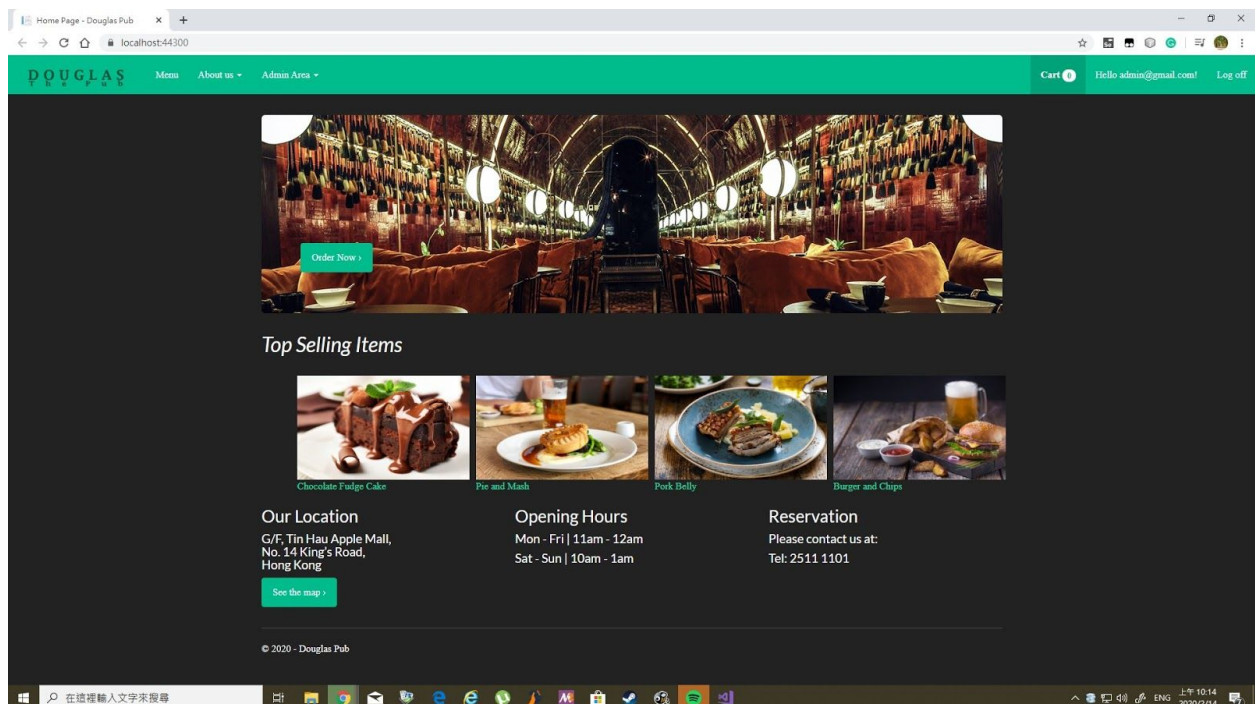
I added a guest login function for the customers who do not want to create an account. If I have more time I would do more security/penetration testing and also make sure that the application can achieve a higher conformance level of the web accessibility requirement.

8. Application fact sheet:

Key Features:

- 1) The application follows the W3C Web Accessibility Initiative (WAI) Guidelines and tested with multiple browsers such as Chrome, Firefox and IE.
- 2) The database is initialized for the first run of the application. This project is using Entity Framework Code-First approach. Therefore, limited SQL is required. Security features such as using `@Html.AntiForgeryToken()` to protect the application against cross-site request forgery.
- 3) The homepage will automatically shows top-selling items for customers to place an order quickly.
- 4) The administrator can manage users, shop items and orders. Customers can place, review and modify foods and drinks order.
- 5) RESTful API allows the admin user to access and manipulate database items and orders.

Home Page



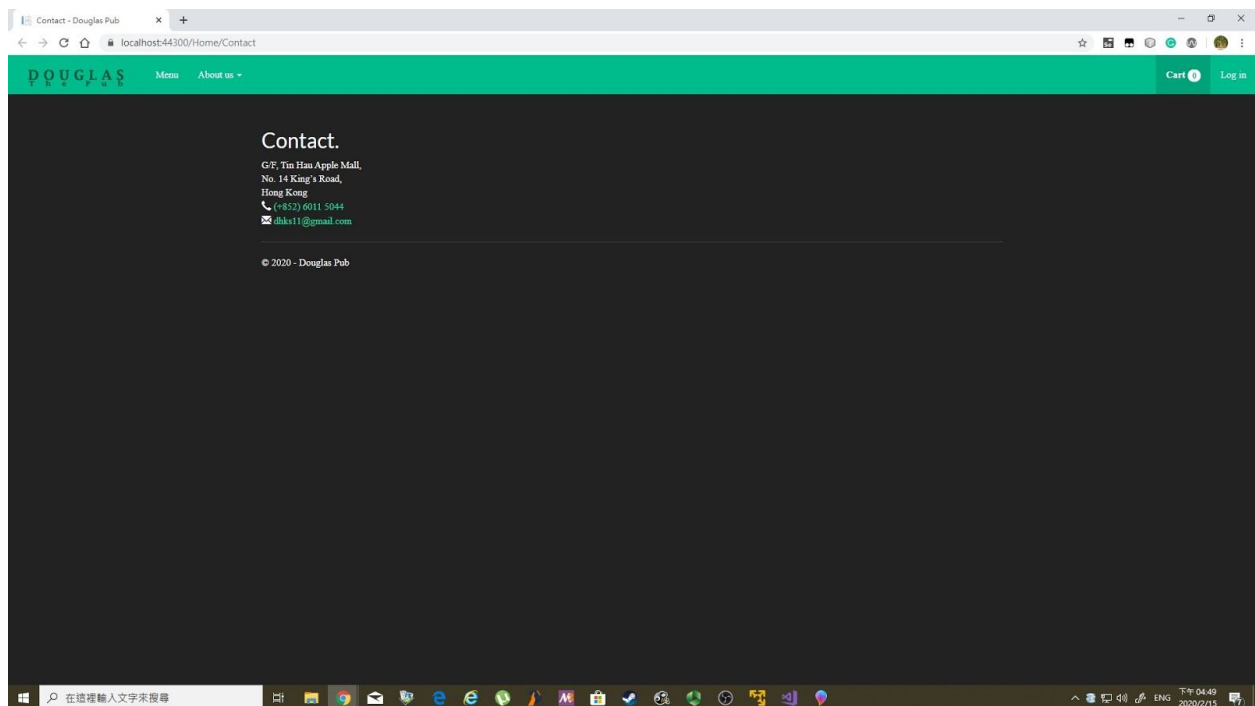
- This home page shows useful information about the pub's location, opening hours and reservation contact number. Users can start to order the foods by clicking the Order Now button, Menu or choose from the auto-generated top-selling items.

About us - Our Story



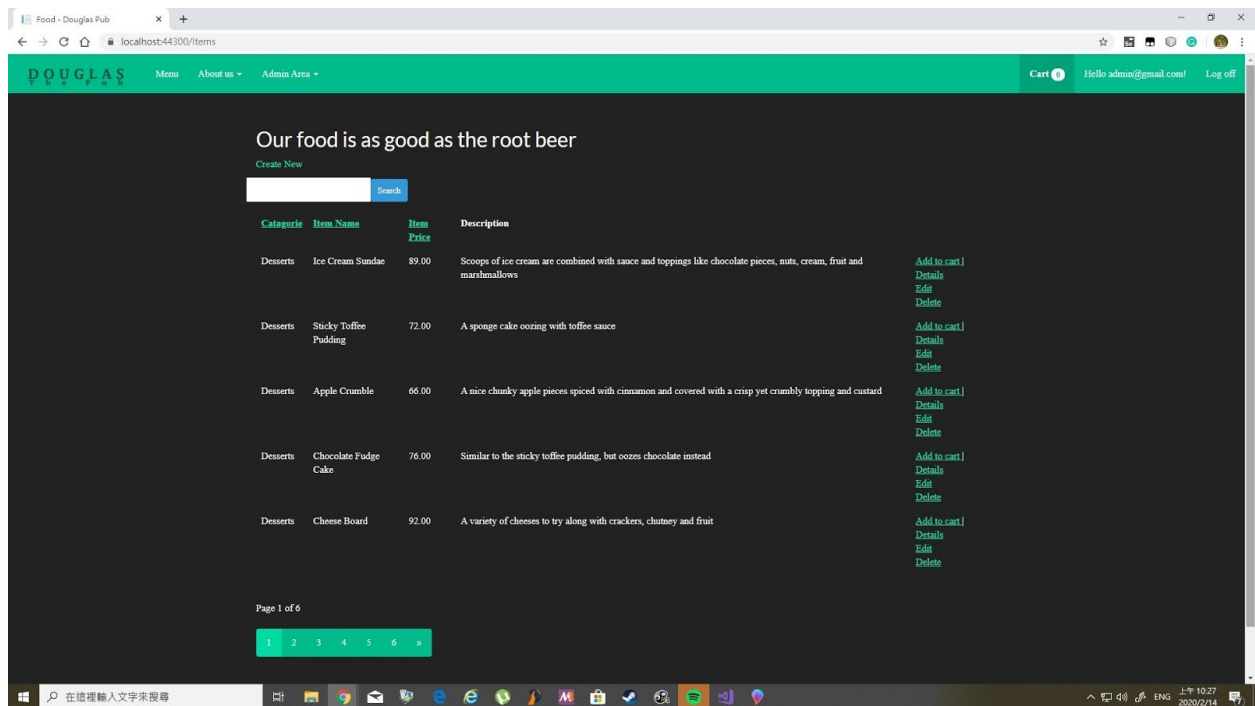
- This page shows the story and basic information about the pub.

About us - Contact

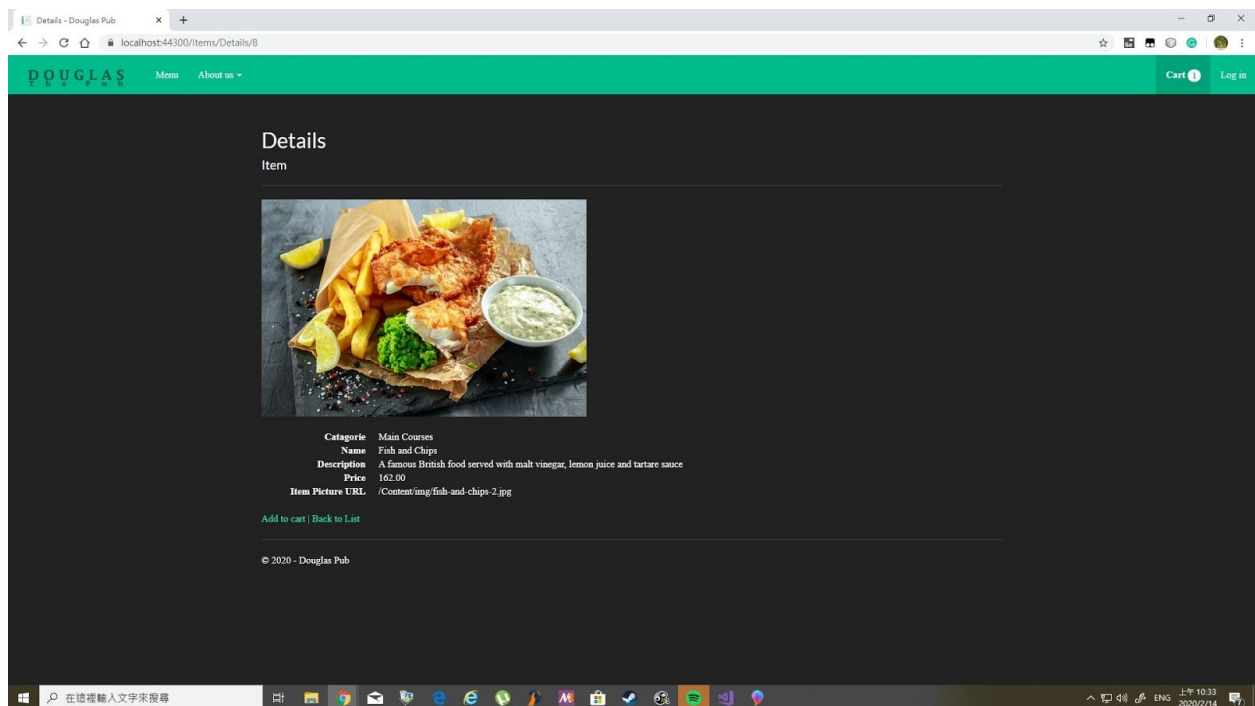


- The contact page provides information for customers if they have any queries.

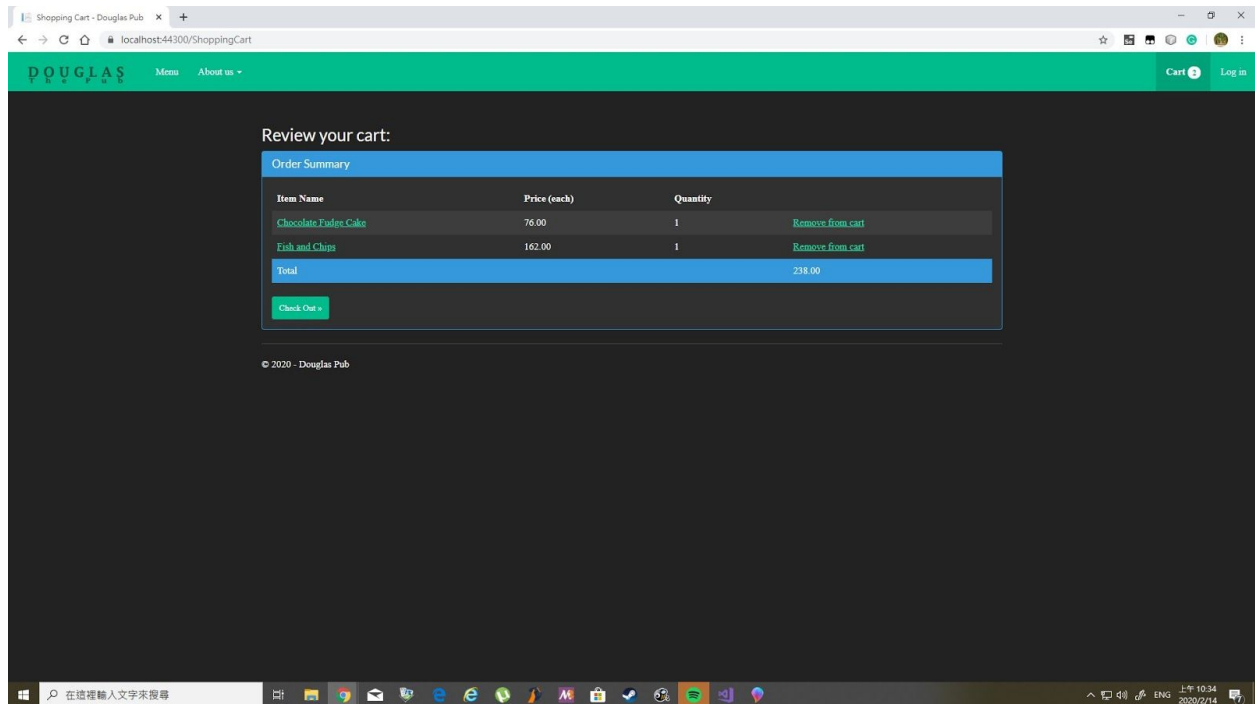
Menu



- Customers can search for specific items and categories by using the search bar at the top or navigate by clicking the page numbers at the bottom in order to select the foods.

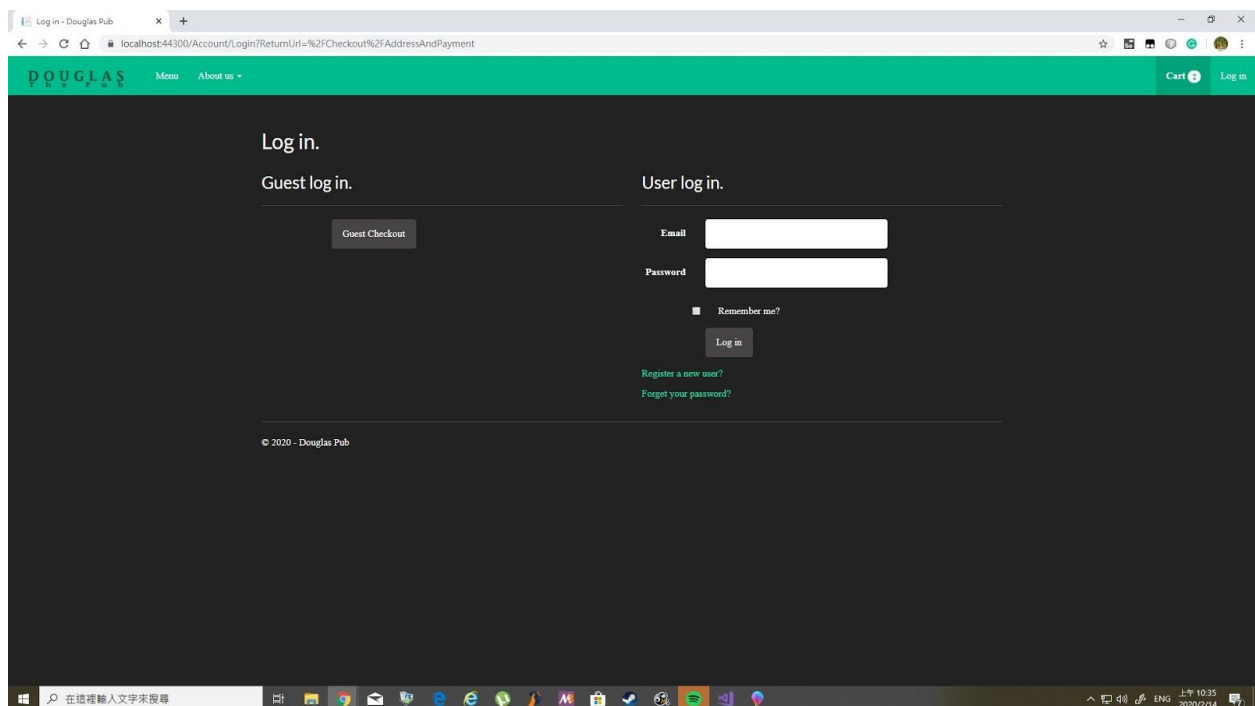


- Customers can view the details or click add to cart of the specific item.

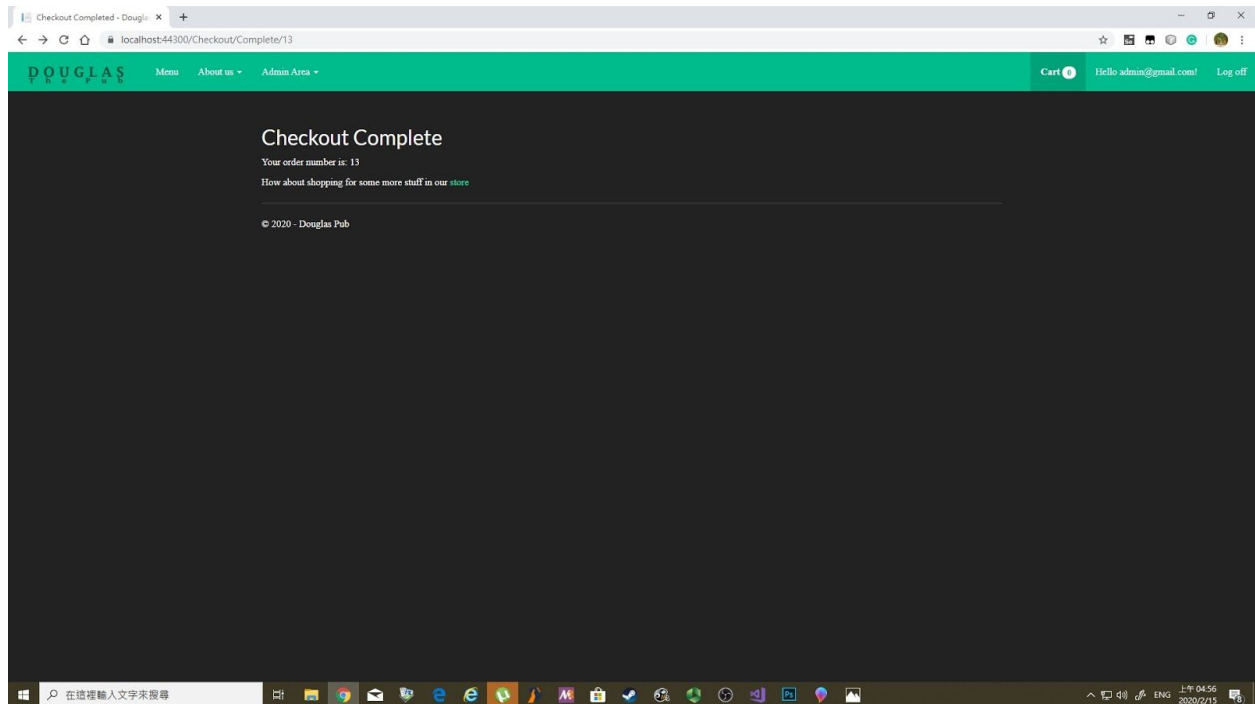


- Then customers can check out or modify the order before check out.

Log in

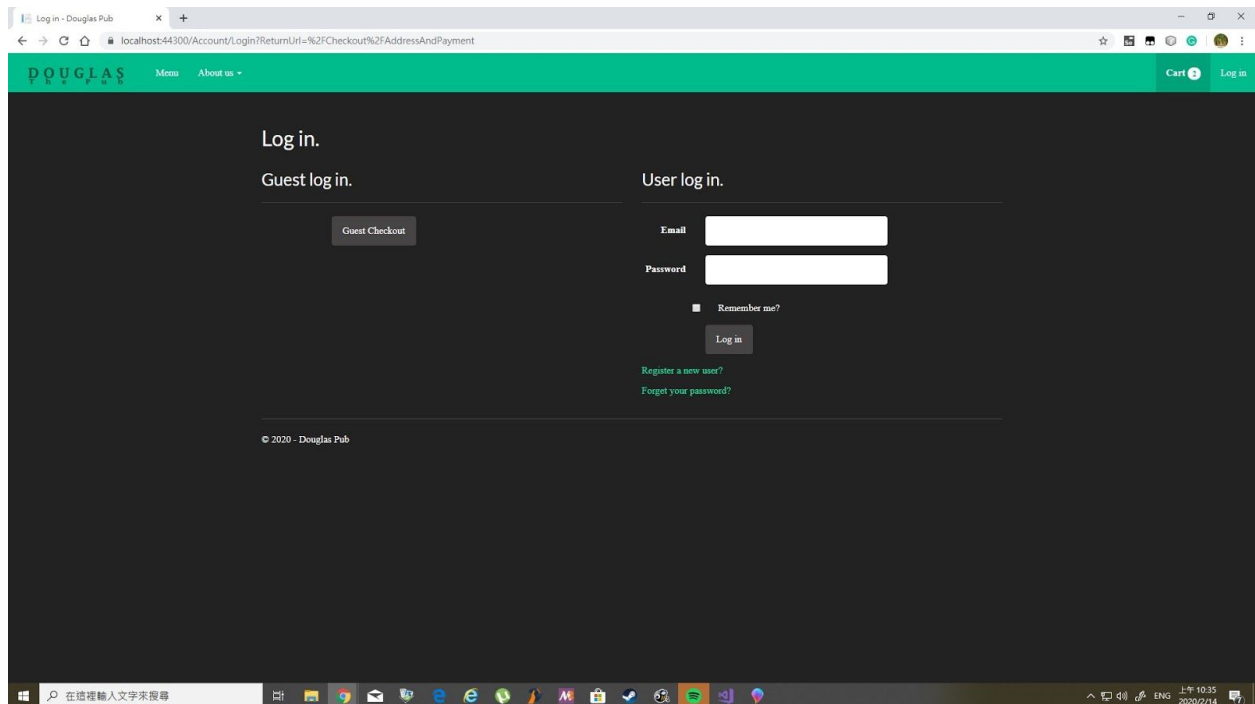


- Customers need to log in the account or just use the guest checkout. They need to fill in basic information then submit order. It is using `@Html.AntiForgeryToken()` security feature to protect the application against cross-site request forgery.

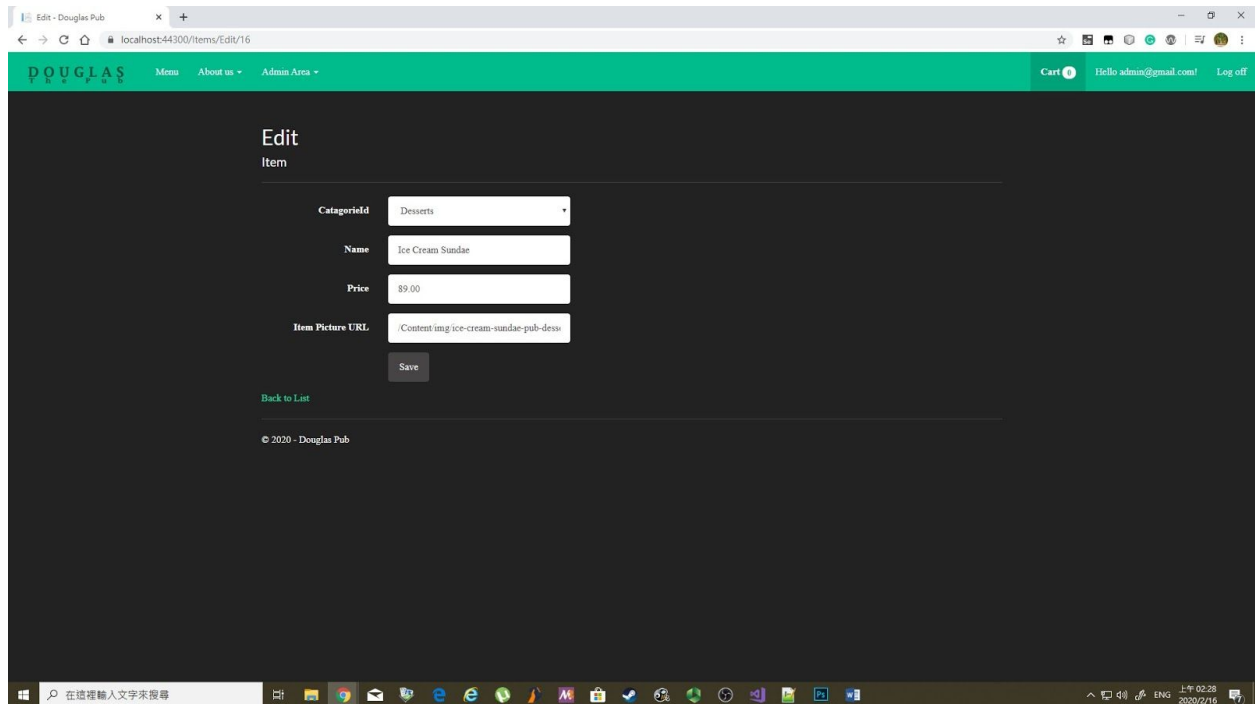


- Order number will be shown if checkout completed.

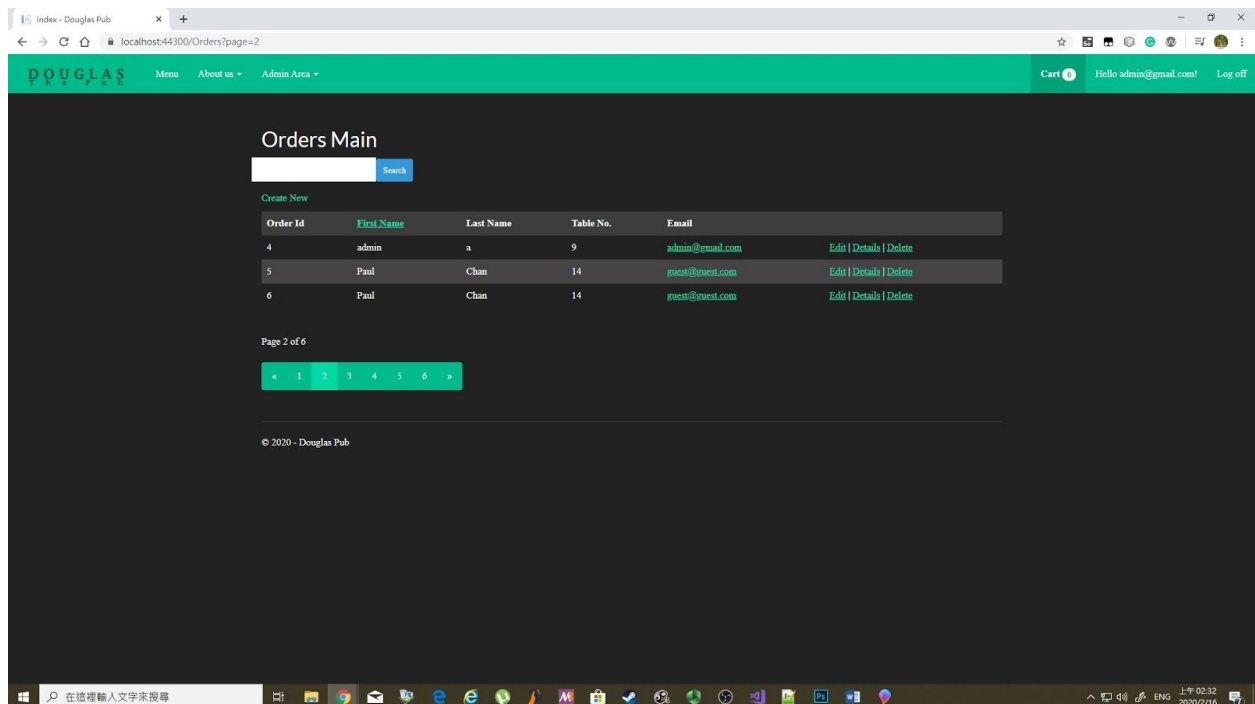
Administrator



- The administrator can log in by using Email: admin@gmail.com and Password: "Admin@123".

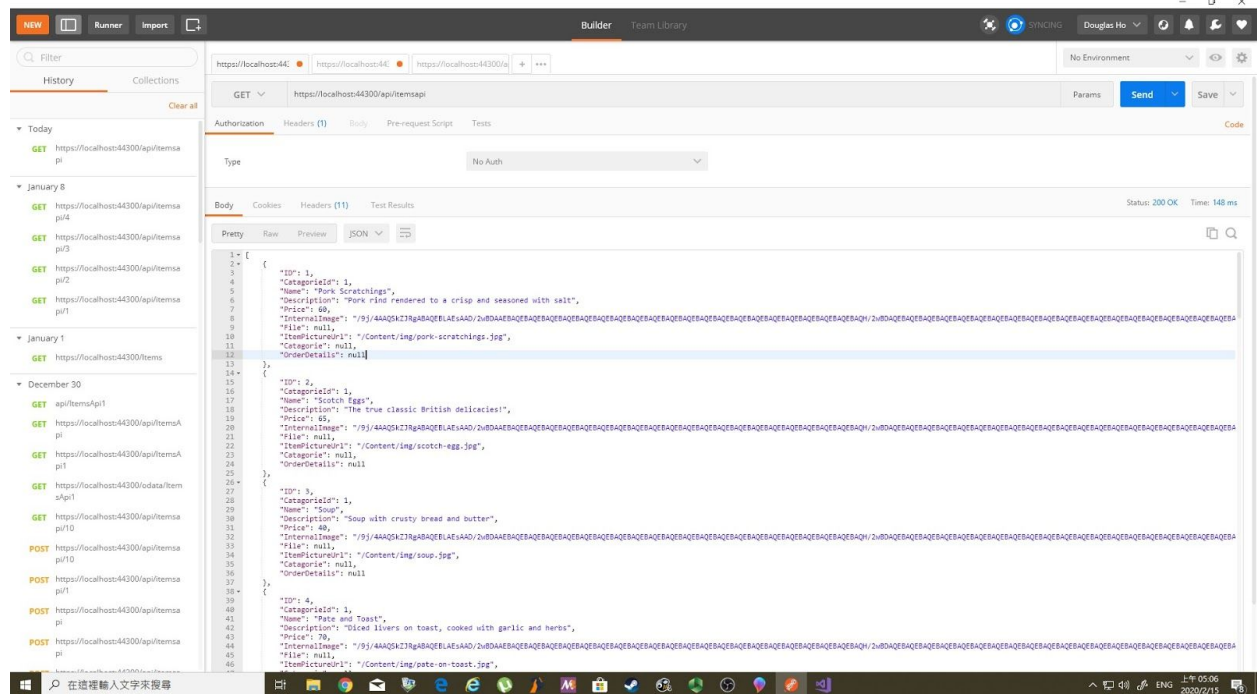


- The administrator can create/edit items in the Menu page.



- The Admin Area provides information of the Orders, Sales and Categories. The administrator can also control the user account and roles.
- Users can click the user name on the top right-hand corner for changing their password.

RESTful API testing



- RESTful API Middleware is tested with Postman for GET/PUT/POST/DELETE.

For Items

<https://localhost:44300/api/itemsapi>

For Orders

<https://localhost:44300/api/ordersapi>

Reference links for the application:

Web Accessibility Handbook:

https://www.ogcio.gov.hk/en/our_work/community/web_mobileapp_accessibility/promulgating_resources/handbook/

The W3C Web Accessibility Initiative (WAI) Guidelines

<https://www.w3.org/WAI/>

The W3C Web Content Accessibility Guidelines (WCAG):

<https://www.w3.org/WAI/standards-guidelines/wcag/>

The ASP.NET MVC 3 music store:

<https://docs.microsoft.com/en-us/aspnet/mvc/overview/older-versions/mvc-music-store/mvc-music-store-part-1>

CSS framework Bootstrap:

<https://bootswatch.com/3/>

The pictures used in the application:

Home image:

<https://www.mott32.com/home>

Food images:

<https://britishgrubhub.com/british-pub-food/>