**EE4717 Web Application Design – Project Report**

Design project group number: F35-DG16

Team members: Aaron Gangemi, Course code: EE4717

**Project Title: NTU Pizzeria online ordering service**

**Summary of Project:**

The project I will be developing will be a website for the NTU Pizzeria. The site will provide the Pizzeria’s customers with a quick and easy-to-use method of ordering their pizza online. The site will have the capacity to display to the user what pizza is offered for delivery. The user will be able to submit their order with payment and delivery details inclusive. In addition, the site will also be able to inform the user of existing deals offered by the NTU pizzeria and allow them to purchase existing promotion deals. Furthermore, the site will provide links to various pages including the menu, locate us page and user feedback review page. Once the user has ordered, the site will send the user email confirmation stating the status of the user’s order.

Table of Contents

[1. Applications Requirements and Specifications 3](#_Toc19825565)

[2. Functional Requirements and Specifications 4](#_Toc19825566)

[3. Sitemap 6](#_Toc19825567)

[4. Storyboard 7](#_Toc19825568)

[5. Wireframes 8](#_Toc19825569)

[5. Wireframe cont’d: 9](#_Toc19825570)

# 1. Applications Requirements and Specifications

The website will allow customers to order pizza/s from the NTU Pizzeria. The site allows customers to input their order details to the site and the pizzeria will prepare the order for delivery. The site will contain various links presented using banners, images, text and navigation bars with the end goal of directing and assisting the user to submit an order to the NTU Pizzeria. The site should display features such as the menu and existing promotion in an easy-to-use manner in order to enhance the sites usability and to ensure the user is easily able to submit their order. To do this, the following features will be incorporated:

R1 – The website will begin by featuring the home page of the site. The home page will contain the NTU Pizzeria’s logo, signup/login links, access to the main navigation bar items and various banners displaying existing promo deals offered by the NTU Pizzeria. The user/customer will be able to click on each banner to view the corresponding promotion deal.

R2 – Each page will incorporate the main navigation bar which will navigate the user to the “menu”, “promotions”, “locate us” and “review” pages. Each navigation item, when clicked will take the user to the corresponding page.

R3 – The menu page will consist of each available pizza offered by the NTU Pizzeria with its associated title, image, cost, description and an add icon.

R4 – The promotions page will display any existing promotions offered by the NTU Pizzeria. The promotions will show an image of the meal, the price of the promotion and the promotion’s description.

R5 – In order for the customer to user to contact the pizzeria, a “Locate us/Contact us” link will need to be provided. This page will contain an image of where the pizzeria is located on the map as well as the pizzeria’s contact details.

R6 – The customer will need to enter their delivery details such as name, email and delivery address for the pizza to be delivered. Therefore, the site will contain a signup/login link which after the user fills out a form to create an account, will store their delivery details.

R7 – To support the users order, the site will require a cart which will store the users/customers order for checkout.

R8 – The site will require the user to review their delivery details before the order is sent to the pizzeria.

R9 – Once the customer submits their order and order details, they will be notified of the status of their order via email.

R10 - After the customer has received their order, they will able to review the service and quality of the pizza from the home page.

R11 – The site will need to provide an FAQ page. This will answer commonly asked questions from customers. Users will be able to view the answers to these questions in the FAQ page.

R12 – The site will need to provide the user with a method to pay for the order.

# 2. Functional Requirements and Specifications

F1 – (R1) The home page will be the first page displayed. The home page will provide the user with navigation links directing the user to different aspects of the site such as the menu, existing promotions, locate us page and review page through the navigation bar. In order to make the page creative and appealing, the home page will need to contain banners of existing promotion deals offered by the pizzeria. The banners will need to extend across the entire home page to attract the user’s attention.

F2 – (R2) The navigation bar displayed on each page will contain links to the pizzeria’s menu, promotion deals, locate us link and order review form. Each of these links, if clicked will direct the user to the corresponding page. It will need to be featured on each page so the user can go to any page, thus providing quick access throughout the site. The navigation bar is an important component of the website as it acts like the GPS between pages. In order to enhance the navigation bar, the text of the bar will need to contrast with the background in order to make the navigation bar standout.

F3 – (R3) The menu page will list the variety of pizzas offered by the NTU Pizzeria. However, several pizzas onto one page can be overwhelming for the user, so I have decided to use a second navigation bar to split the menu page. The navigation bar will incorporate links to decipher between “NTU Classics” pizzas and “Student Specials”. Each pizza offered by the pizzeria will be sorted into one of the categories from the pizza navigation bar. The user can view and potentially order one of these pizzas by clicking on its category and then clicking the add icon of the pizza. Furthermore, each item on the menu will have a description and cost corresponding to the pizza displayed. Each menu item will also require a link in the form of a plus (“+”) icon which will allow the user to add the item to the cart. The item will then be added to the order and can be viewed later before checkout.

F4 – (R4) One of the features that attracts customers to the pizzeria is the existing promotions. The site will need an appealing and attractive way to display the promotions at the forefront of the site. Therefore, the promotions page can be navigated to using either the navigation bar on any page or by clicking on the existing banners being displayed on the home page. If clicked on, the promotions page will display existing promotions offered by the NTU Pizzeria. Each promotion displayed will need to display an image of the meal, a description and a promotional cost so the user knows what is included in each promotion as well as a plus (“+”) icon. If the user wishes to add the promotion to their meal, they may click on the associated plus icon which will add the promotional meal to the cart. The promotions will be sorted by the date that the promotion expires.

F5 – (R5) If the user wishes to contact or visit the pizzeria, they will require a way to find out where to go or who to contact. When the user clicks on “Locate us/Contact Us” in the navigation bar or footer content of each page, a picture of where NTU Pizzeria is located will be displayed to show the user where the pizzeria is located. A textual description of the pizzeria’s address will also be given in correspondence to the image. The page will also need to provide contact details to the pizzeria’s email address and contact number, so the user is able to contact the pizzeria.

F6 – (R6) The site will require a signup/login page which will ask the user to fill out a form to create an account and further store their user details such as name, email address and delivery details. The user will need to enter their delivery details before they order, so the site will store their details, so the user does not have to enter them every time they wish to order.

F7 – (R7) To support the users purchase of the online order, the pizzeria site will provide the user with an order cart which will store all the menu items that the user has wished to add to their order. Once the user decides to checkout, the user will click on the cart/checkout button, in which the items in the order cart will be displayed to the user for review. When the cart is displayed, the user will be presented with a customization text box. The user may enter any customizations they would like made to the order (For example, the user may enter: “I would like no pineapple on my pizza”). The user will then be asked to enter/confirm customer and payment details.

F8 – (R8) The site will require the user to review their delivery details before each order. These details are acquired when the user creates an account. This page will display and confirm with the user their name, email, order cost and delivery address. Once the user is happy with these details, they can confirm this and move to payment.

F9 – (R9) Upon submission and payment of the order, like any service, the customer will receive a confirmation email to state the status of the order such as “The order is being prepared.” The email will be obtained from the customer’s account upon signup/login and the customer will be updated upon delivery of the order status.

F10 – (R10) For feedback purposes, the site will provide the user with an option to provide feedback on the site ordering system or the service and quality provided by the pizzeria. The user can access this page through the navigation bar link “Review”. The user will be asked to fill out a textual form in which they will be able to enter their opinion of the pizzeria. Upon submission through the submission icon, the form will be sent back to the pizzeria.

F11 – (R11) The user will be assisted with an FAQ (Frequently Asked Questions) page. This page will list both commonly asked questions to the pizzeria in relation to ordering through the site. A textual description will be provided to the user answering their questions in both a clear and concise format. The user will be able to access the FAQ page in the footer content of the site.

F12 – (R12) The site will need to allow the user to pay for the purchase. Therefore, upon confirmation of delivery details, the user will be redirected to a 3rd party site for payment. If the user attempts to pay for their order and they are unsuccessful, they will be redirected back to their order delivery review page in which they will be notified that no payment was made, and the online transaction was unsuccessful. This requirement is not addressed in the storyboard, wireframe or sitemap as it is handled externally.

# 3. Sitemap

A screenshot of a cell phone

Description automatically generated

REFERENCE: Sitemap generated from draw.io

The above image is the sitemap for my pizzeria site which demonstrates the structure of the project. As mentioned in section 2, functional requirement 1, the sites first page displayed will be the home page. From the diagram, the home page will have several links to various pages throughout the site. Each page is designed to incorporate an “Order now” button and a navigation bar which will provide quick access to the menu, instead of the user having to go back to the home page to access the menu. Assuming the user is creating an order and is logged in, the user will be able to click on the menu link or the promotions link in the navigation bar (Functional requirement 2 and 3), which will display the available items offered by the pizzeria (Functional Requirements 3 and 4 for menu and promotions). The menu is split up into two pages. “NTU Classics” and “Student Specials”. Each page contains different menu items and the user may alternate between options to add different pizzas to their order. Once the user is finished with the menu and their desired pizzas have been added to the cart, the user will be able to click on the cart (functional requirement 7 of section 2) to review their order and further checkout. The cart will display the users order with the orders corresponding pricing. Finally, once the user is happy with all the items in the cart, they will be asked to confirm their customer delivery details (Functional Requirement 8) which are obtained from the users account. The user will then be directed to a 3rd party payment site (Functional Requirement 12, Section 2). After the user has finished their order, they will be sent a confirmation email which is not listed in the sitemap above, however, the email will contain the status of the order (functional requirement 9 of section 2). From here, the user will be redirected to the home page in which they will have the option to review the order and service (Functional Requirement 10, Section 2).In addition, from the home page, the user will also be able to view the locate/contact details of the pizzeria if they wish to visit or contact the store (Functional Requirement 5).

# 4. Storyboard

* References to Section 2 are below
* Requirements are in circles
* Textual description on Right hand side

A close up of text on a white background

Description automatically generated

# A close up of text on a white background Description automatically generatedA close up of a map Description automatically generated5. Wireframes

# 5. Wireframe cont’d:

A close up of text on a white background

Description automatically generated