



In partial fulfillment of requirements in

Web Systems and Technologies

2 ITS122L

Ordering and Booking System for Tummy Pillows Bakeshop

Project Proposal

By HeptaCore

MEMBERS

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SO, Francis John

PROFESSOR

Prof. Felipe G. Ante Jr.

February 22, 2025

I. Introduction

Tummy Pillow is a small local business that focuses on delivering delicious pastries to any point in mainland Luzon. The business began in 2021 as a means of earning money during the pandemic. They employ their own rider and a team of bakers. They established their online store on Facebook which you can visit.

II. Problem Statement & Objectives

With the pandemic now in the past and a noticeable shift in consumer behavior towards specialized e-commerce platforms, Tummy Pillow is poised to enhance its online visibility through the launch of a fully operational website. This site will act as a central hub for product display, order processing, and customer interaction. The objectives of this initiative include:

- Establishing a professional online storefront that extends beyond social media.
- Enhancing order management and fostering customer engagement.
- Delivering a seamless and user-friendly shopping experience.
- Broadening market reach beyond Facebook.
- By moving to a dedicated website, Tummy Pillow aims to fortify its brand identity, boost operational efficiency, and align with the changing expectations of its clientele.

III. UN SDGs Addressed

Goal 1 - No Poverty and Goal 8 - Decent Work and Economic Growth: Tummy Pillow was founded during the coronavirus pandemic, a time that forced many people to stay home and livelihoods to shut down. While certainly a small and modest business, their continued operation and retainment of all original members is proof of the fulfillment of these goals.

Goal 5 - Gender Equality and Goal 10 - Reduced Inequalities: The exact criteria for aspiring applicants is not released to us but they have said that they will accept anyone so long as it does not break Philippine law and upon finishing a basic test of Filipino, English, and arithmetic.

IV. Scope of the Project

The project will culminate in the creation of a fully operational website that incorporates the following essential features:

- User Registration: An intuitive registration system enabling users to establish their profiles.
- Virtual Carts: Allow customers to add or remove pastries that they may or may not purchase.
- Delivery Page: An intuitive system to have pastries delivered at a time and place of the customer's choosing via their choice of payment method
- Admin Panel: A straightforward administrative interface for overseeing user information and other relevant business information.

Development will occur in stages, commencing with the design and database configuration, followed by the integration of the key features. The outcome will prioritize user-friendliness, security, and the provision of a viable solution to meet Tummy Pillow's e-commerce requirements.

Functionalities

- Interactive UI presenting Pastries that users/customers can buy from the website
- Pastry Stock represented in the Database through the site
- Site managers can use the Admin panel to gather useful information about sales performance
- Users can add to cart various pastries
- User profile will be stored to the database

Client's Name: Ma. Teresa M. Mapolon (Representative of Tummy Pillow)

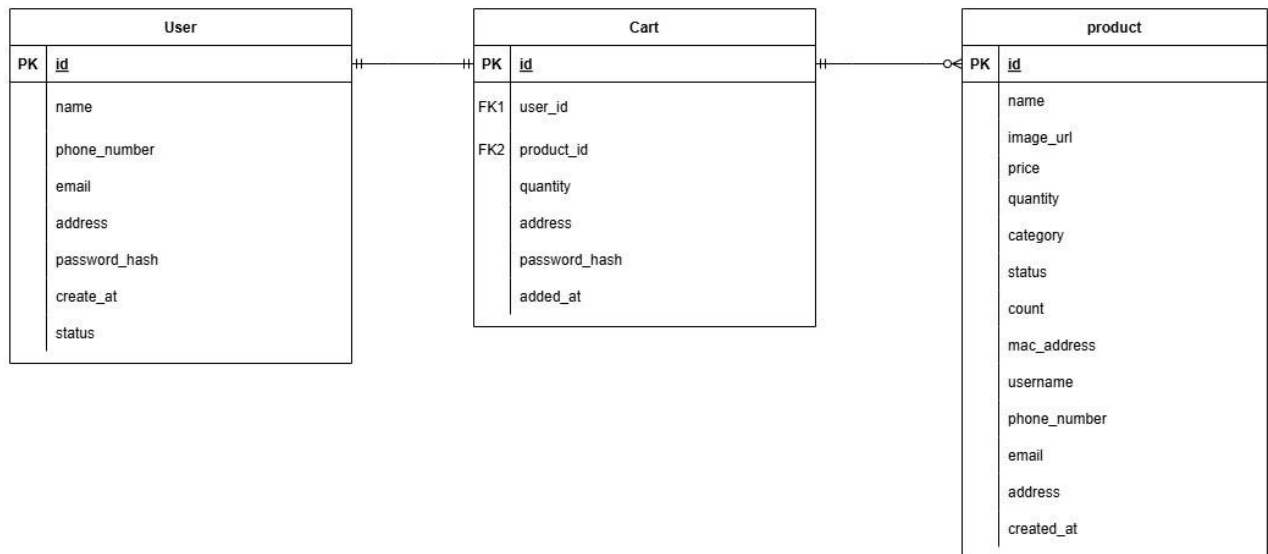
Client's Phone Number: 09062160943

V. Functional/ Non-functional requirements

Name	Requirements
Functional Requirements	
Profile	Users can create an account to manage orders and preferences.
Menu	The website should showcase available pastries with images, descriptions, and prices.
Cart	Users can add/remove items from their cart before checkout.
Order	Customers can place orders and select delivery options.
Admin Panel	Admins can manage orders, update inventory, and monitor sales.

Name	Requirements
Non - Functional Requirements	
Product Requirements	
Usability	The interface should be user-friendly and intuitive for both customers and administrators.
Performance	The website should load within 3 seconds for a seamless experience.
Security	User and payment data should be encrypted and protected.
Scalability	The system should accommodate a growing number of users and transactions.
Maintainability	The system should be easy to update and troubleshoot.
Reliability	The website should have an uptime of 99.9% to ensure continuous service.

VI. Database Design (ERD)

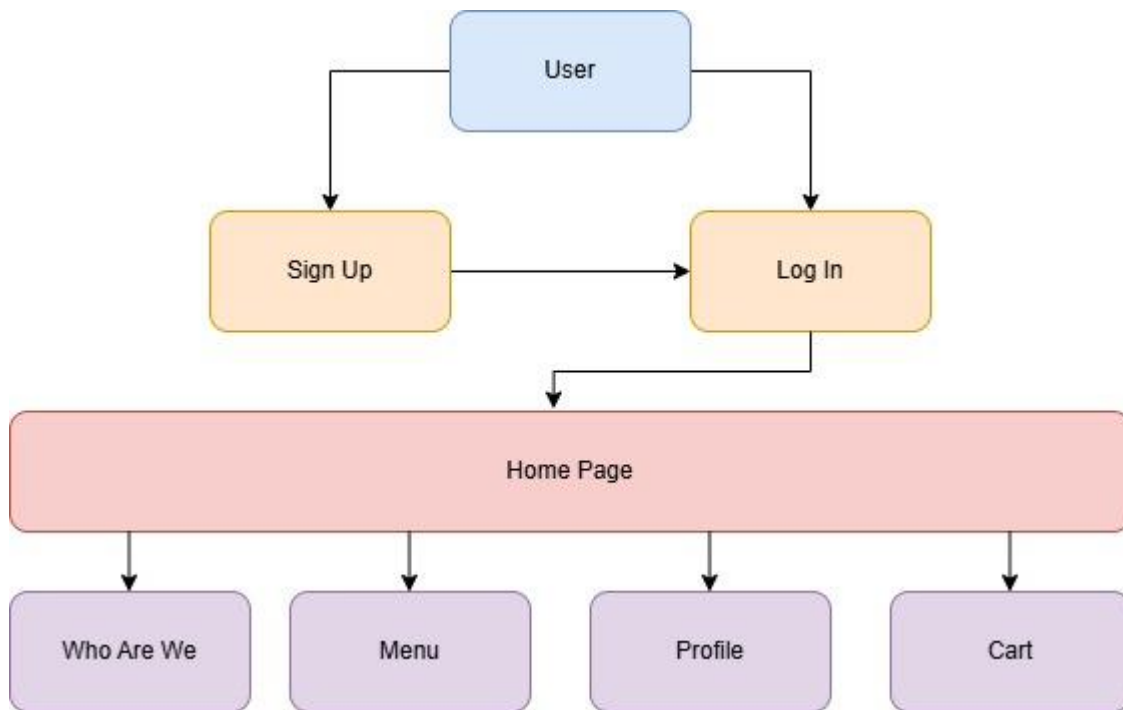


ERD Description

The first image is an entity-relationship diagram (ERD) representing the database structure for an ordering and booking system. It consists of three main entities: the User table, which stores user details such as name, phone number, email, address, password hash, creation date, and status; the Cart table, which links users to products and contains fields like user ID, product ID, quantity, address, password hash, and the date the item was added; and the Product table, which holds information about each product, including name, image URL, price, quantity, category, status, count, MAC address, username, phone number, email, address, and creation date. The Cart table acts as a junction table, establishing relationships between users and products to facilitate order processing.

VII. Features of the System

A. Sitemap



Sitemap Description

The sitemap outlines the user journey within the system. It begins with the user, who can either sign up as a new user or log in as an existing one. After authentication, users are directed to the home page, which serves as the main navigation hub. From there, they can access key sections of the website, including who we are (an "About Us" page), menu (which showcases the available products), profile (where users can manage their account details), and cart (where they can review and finalize their orders). This structured navigation ensures a smooth and intuitive user experience within the system.

Project Title: A Website for Tummy Pillows

Project Start Date: Feb 6, 2025

Project End Date: March 22, 2025

Summary of Project:

The Tummy Pillow e-commerce website was developed to establish a stronger online presence for the business and provide a seamless platform for customers to browse, order, and have pastries delivered anywhere in mainland Luzon.

Project Outcome:

The Tummy Pillows website was successfully completed and delivered to Maria Mapolon, owner of the organization. The website met the project objectives and requirements agreed upon by both parties.

Project Sign-off:

By signing this document, the project client and project members confirm that the project has been completed to the satisfaction of all stakeholders.



Emmanuel John D. Barreto



Carl Bryant A. Carlos



Paolo Noel M. De Chavez



Christian Matthew A. Herrera
College Students from Mapua University


Francis So

Francis John L. So

Approved by:



Ma. Teresa M. Mapolon
Founder and CEO of Tummy Pillow

Dear Maria Mapolon,

We sincerely appreciate the opportunity to collaborate with Tummy Pillow for our web development project. As college students eager to apply our skills, we are excited to work under your guidance and the supervision of our professor to create a website that enhances your business's online presence.

Our goal is to develop a user-friendly e-commerce platform that allows customers to browse pastries, place orders, and schedule deliveries with ease. We are committed to handling all aspects of the project, from design and database development to testing and implementation, ensuring that the final product meets your expectations.

We look forward to discussing the next steps with you, including meetings to align requirements and gather your valuable input throughout the development process. Your insights will be invaluable in shaping a website that truly represents Tummy Pillow.

Sincerely,



Emmanuel John D. Barreto



Carl Bryant A. Carlos



Paolo Noel M. De Chavez



Christian Matthew A. Herrera
College Students from Mapua University


Francis So

Francis John L. So

Approved by:



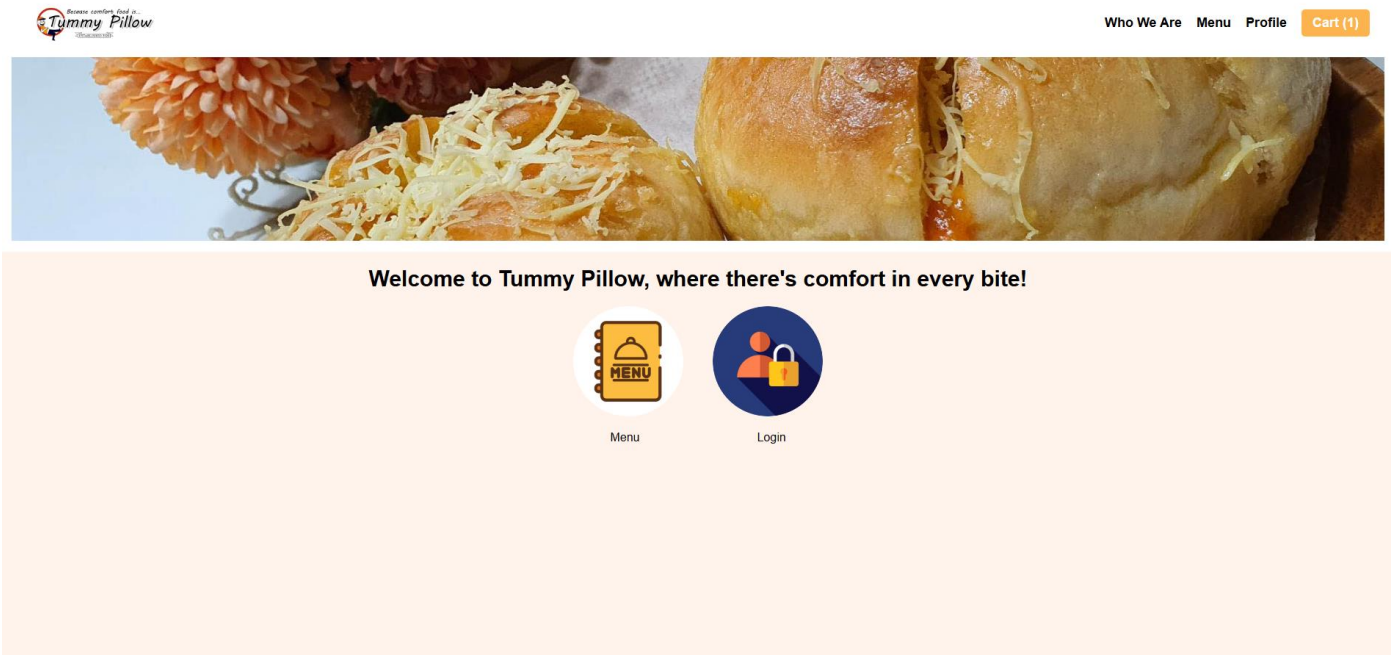
Ma. Teresa M. Mapolon
Founder and CEO of Tummy Pillow

X. Test Results

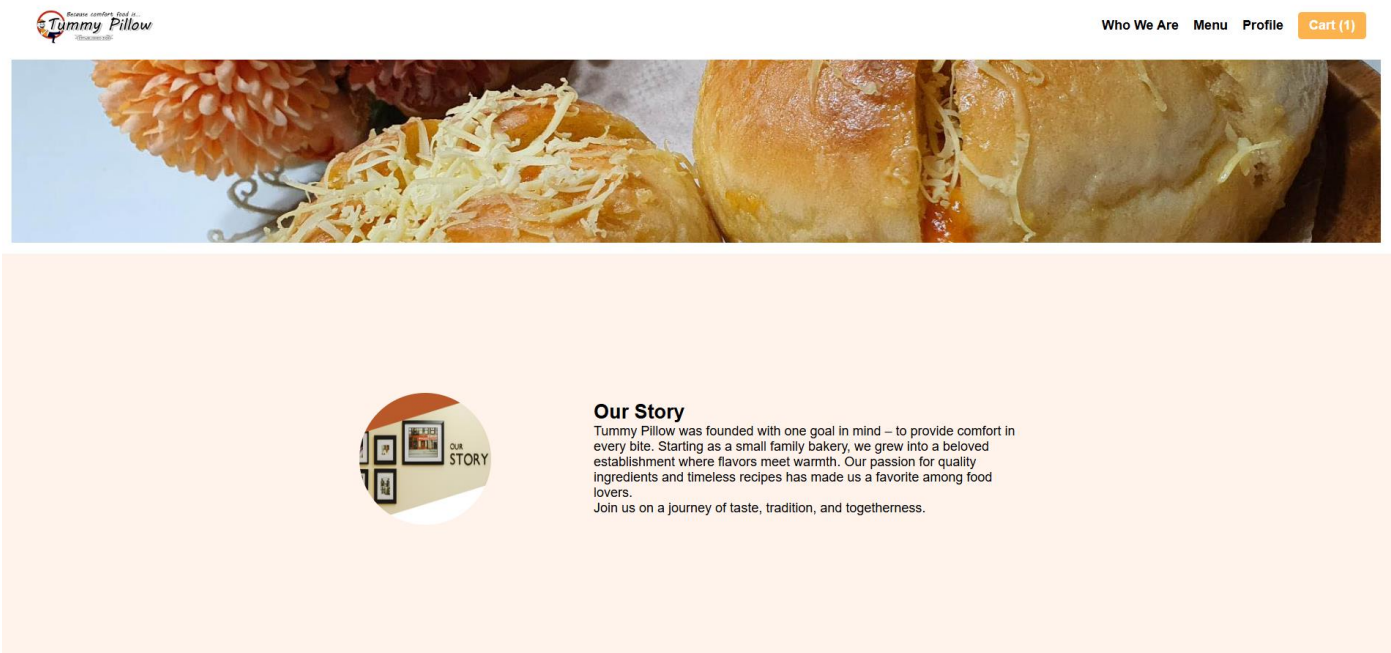
Unit testing and integration testing revealed no significant errors. UI/UX testing revealed a small quirk with the cart page wherein the buttons to add and remove items go out of alignment when a value greater than nine is reached.

XI. Screenshots of the Functions of System

Welcome Page



Who We Are Page



Cart Page



Your Cart

Item	Price	Quantity		Total
Garlic Cream Cheese Buns - Box of 6 Regular Size Buns	PHP420.00	-	1 +	PHP420.00
Grand Total:				PHP420.00
Clear Cart		Login		

Menu



Welcome to Tummy Pillow, where there's comfort in every bite!

Hot Deals!



Garlic Cream Cheese Buns - Box of 6 Regular Size Buns
Box of 6 - PHP420.00



Garlic Cream Cheese Buns - Box of 4 Big Size Buns
Box of 4 - PHP420.00



Chocolate Revel Bars - Box of 16 Bars
Box of 16 - PHP440.00

Our Menu



Garlic Cream Cheese Buns - Box of 6 Regular Size Buns
PHP420.00

ADD TO CART



Garlic Cream Cheese Buns - Box of 4 Big Size Buns
PHP420.00

ADD TO CART



Chocolate Revel Bars - Box of 16 Bars
PHP440.00

ADD TO CART



Cinnamon Rolls - Box of 4
PHP420.00

ADD TO CART



Empanadas - Box of 4
PHP260.00

ADD TO CART



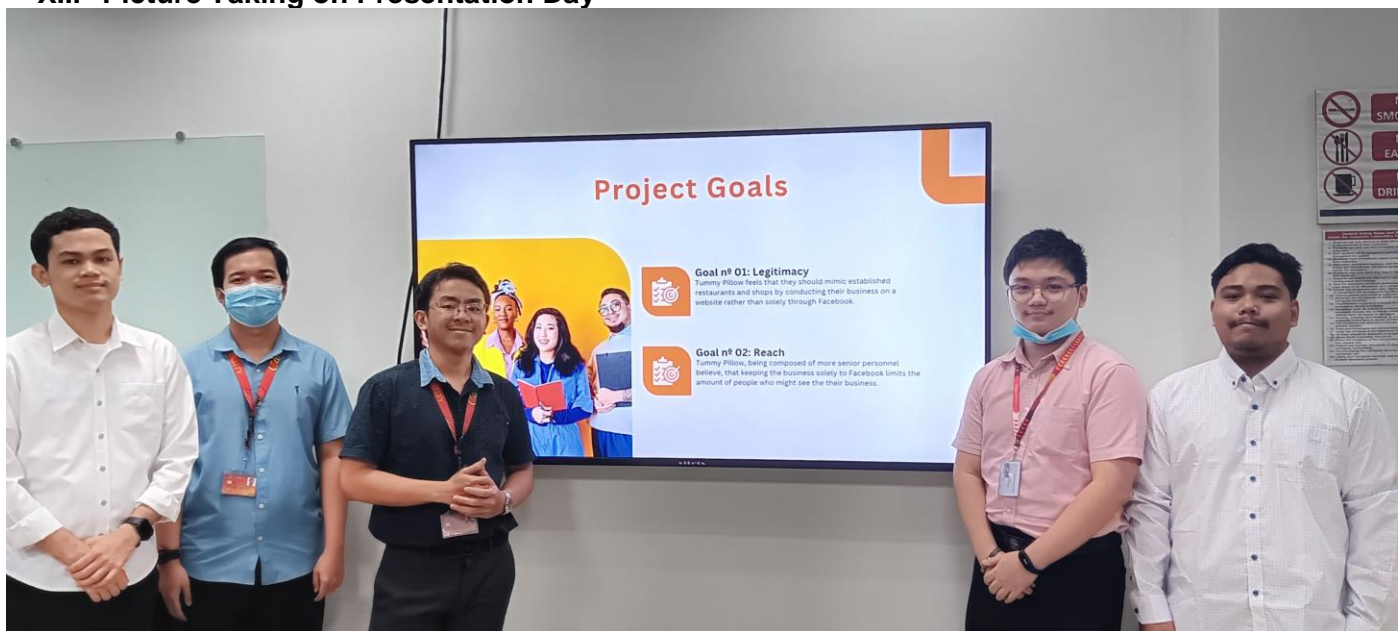
Empanadas - Box of 12
PHP780.00

ADD TO CART

Order Management

Order Management								
		<input type="text" value="Username"/>	<input type="text" value="Enter filter value"/>	<input type="button" value="Filter"/>				
Select	ID	Username	Address	Phone Number	Count	Price	Status	Action
<input type="checkbox"/>	31	Paolo De Chavez	Mapua University Makati	09691507167	3	PHP420.00	on delivery	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="checkbox"/>	33	eman		09691507167	1	PHP420.00	purchased	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="checkbox"/>	35	Paolo	4 San Pablo	09691507167	2	PHP420.00	on delivery	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="checkbox"/>	36	Paolo	4 San Pablo	09691507167	2	PHP420.00	on delivery	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="checkbox"/>	37	Paolo	4 San Pablo	09691507167	5	PHP420.00	on delivery	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="checkbox"/>	38	Paolo	4 San Pablo	09691507167	1	PHP420.00	on delivery	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="checkbox"/>	41				1	PHP420.00	on cart	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="checkbox"/>	42				1	PHP420.00	on cart	<input type="button" value="On Delivery"/> <input type="button" value="Delivered"/>
<input type="button" value="Set as On Delivery"/> <input type="button" value="Set as Delivered"/> <input type="button" value="Sales Report"/>								

XII. Picture Taking on Presentation Day



From left to right: Carl Carlos, Paolo De Chavez, Christian Herrera, Francis So, Emmanuel Barreto