Pizza Restaurant Project Plan

Restaurant Name: Mama's Pizzeria

Chalmers Geekie cgeekie@students.kennesaw.edu
Maan Bhagat mbhagat3@students.kennesaw.edu
Logan Karjala lkarjala@students.kennesaw.edu
Brenden Horne: bhorne16@students.kennesaw.edu

Scope:

1. Customer Record – Setting up New Customers
   · Create a new customer record
   · Ability to log in using a personal phone number.
   · Able to store personal information (Ex: phone numbers) in a database, known as a "master record".
   · Location of Delivery

2. Taking Orders – in person

   · Process check for payment
   · Process cash for payment
   · Process Credit Card for payment
   · Process Debit card for payment
   Storing/keeping track of the type of payment made
3. Taking Orders – Online/Phone

   · Process Card for payment
   (Same as 2– storing/keeping track of the type of payment made.

4. Customer Database

· Bringing up a log of new user's delivery information and payment type/information

· Pre-Existing Customer (aka a Regular)-- automatically detects pre-existing payment information and prompts the customer to use the same format of payment again as a recommendation, and recommends the same stored location of delivery as the first time the customer had ordered. The database should update any information that is changed via input from the customer and should show an update to the changelog/database with a timestamp provided to prevent further issues.

5a. Receipt Printing & Processing – IN PERSON – RECEIPT IS LISTED AS "PICKUP"
· Credit Card Payment: Receipt prints from a printer, with a prompt for the customer's signature. Along with the other amenities of the receipt (List of items ordered, Amount due, Amount paid, Change due, Total, Order Number, Store Location (maybe))

· Cash: Receipt prints from a printer, with a prompt for the customer's signature. Along with the other amenities of the receipt (List of items ordered, Amount due, Amount paid, Change due, Total, Order Number, Store Location (maybe))

5b. Receipt Printing & Processing – ONLINE/OVER PHONE – RECEIPT IS LISTED AS "DELIVERY"

· Credit Card Payment: (SAME AS 5A), (Receipt is emailed to customer) Accept it is done digitally through a confirmation email sent to the customer upon being prompted to give a delivery location, pre-existing customer credentials, or a new customer…(Receipts include: List of items ordered, Amount due, Amount paid, Change due, Total, Order Number, Store Location, Delivery Location)
· Cash – N/A
· Debit Card Payment: (SAME AS CCP 5B), Accept there is no digital receipt for a signature prompt, but everything else is the same. (Receipts include: List of items ordered, Amount due, Amount paid, Change due, Total, Order Number, Store Location, Delivery Location)

6. Menu GUI
(White box testing focuses on the verification of the main code)
· The white box organization and testing of the menu needs to allow a user to access the menu to enter desired items quickly.
· Menu should contain varying **(sizes, toppings, crust options, and beverages)** options. Customers should be able to order thin, medium, rising, stuffed crust pizzas. Various toppings should have a LITE, REG, or XTRA function to input said worker to include–light, regular, or extra– quantities of said topping. Various cheese quantities– LITE, REG, XTRA. Size of pizza – Small, Medium, Large. Etc.

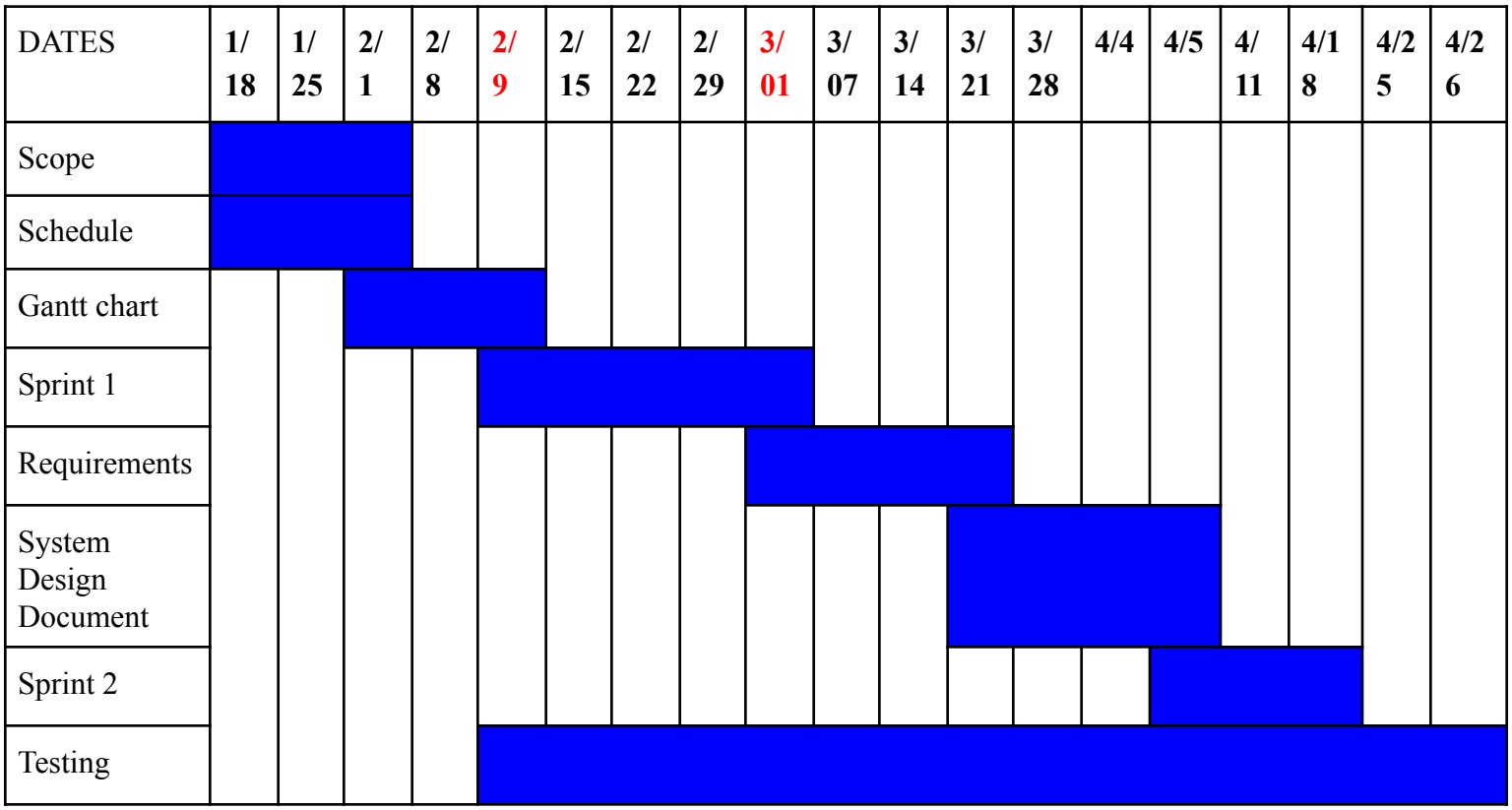
Schedule:

Task ID	Work breakdown structure	Planned start	Planned finish	Workload-planned	Workload - actual	Progress (%complete)
1. Project Plan	1.1 Scope	1/18/24	2/01/24	3 Hours	1 Day	100%
	1.2 Team Organization	1/18/24	2/01/24	1 Hour	30 Minutes	100%
	1.2.1 Assigning Team Roles	1/18/24	2/01/24	15 Minutes	5 Minutes	100%
	1.3 Resume Implementation	1/18/24	2/06/24	1 Day	1 Week	100%
	1.3.1 Resume Formatting	1/18/24	2/06/24	1 Day	3 Days	100%
	1.4 Schedule	1/18/24	2/07/24	2 Weeks	1 Week	100%
	1.5 Data Management Plan	1/18/24	2/09/24	2 Days	1 Day	100%
	1.6 Test Plan	1/18/24	2/09/24	3 Days	3 Days	100%
	1.7 Finalizing the Plan with Proper Formatting	1/18/24	2/09/24	2 Days	1 Day	100%
2. Sprint 1	**2.1** Developing Software Components for specific parts of the project.	2/09/24	3/01/24	2 Weeks		0%
	2.1.1 Using IntelliJ for the first chunk of our program.	2/09/24	3/01/24	2 Weeks		0%
3. Requirements	**3.1** Requirements Definition Document	3/01/24	3/22/24	2 Weeks		0%

	3.1.1 Implementing Functional and Non-Functional Requirements	3/01/24	3/22/24			
	3.2 Requirements Specification Document	3/02/24	3/22/24			
	3.2.1 Creating Case Diagram using Dia.	3/02/24	3/22/24			
	3.2.2 Making a Case Flow of Events Document using MS Word	3/02/24	3/22/24			
	3.2.3 Making Class Diagrams using Dia	3/03/24	3/22/24			
	3.2.4 Implementing Class Documentation	3/03/24	3/22/24			
	3.2.5 Entity Relationship Diagram	3/03/24	3/22/24			
	3.2.5.1 Create using a drawing tool or DB Tool.	3/04/24	3/22/24			
	3.2.6 Create a Decision Table or State Transition Diagram for documenting classes.	3/04/24	3/22/24			
4. System Design	**4.1** Conceptual System Design	3/22/24	4/05/24	1 Week & 4 Days		0%
	4.1.1 Reporting Formats using Word. (Ex: Register Receipts, Order Slips, Daily Business reports/ summaries.					
	4.1.2 Implementing Screen Layouts/Captures					

	4.1.3 Format Screenshots to Guide User through Application. Address requirements and use cases at the bottom of each screenshot.					
	4.2 High level detailed diagrams of Methods, Attributes, and Relationships, with supporting Text Specifications. Using MS word.					
	4.2.1 Database Table Descriptions.					
	4.3 Technical Support Specifications					
	4.3.1 Summary of Technical Support the user can expect.					
5. Sprint 2	**5.1** Finishing our Base Skeleton of our Code using IntelliJ, and using and starting Testing ahead of time.	4/05/24	4/19/24	2 Weeks		0%
6. Testing	**6.1** Finalize our program, conduct tests of our code utilizing White-Box and Black-Box Testing Methods.	2/9/24	4/26/24	1 Week		0%

Gantt Chart:



<u>Team Organization</u>

Team Roles:

Logan Karjala – Team Leader & Organizer & Lead Document Writer
Maan Baghat – Lead Programmer & Lead Program Tester
Brenden Horne – Assistant Programmer & Assistant Program Tester
Chalmers Geekie – Document Writer & Lead Presentation Organizer

Resumes:

Maan Bhagat

mbhagat3@students.kennesaw.edu

Kennesaw State University:
Bachelor's of Software Engineering

minor in Computer Science

Skills:

Java R LTspice
C++ Python

Taking/Completed Classes:
Data Structure Probability and Data analysis
Intro to Software Engineering Professional practices and ethics
----
Intro to Programming 1 Intro to Programming 2
Calculus 1 Discrete Structures

Brenden Horne

bhorne16@students.kennesaw.edu

Kennesaw State University:

Bachelor's of Science in Software Engineering

Minor in Game Design and Development

Skills:

Java

Microsoft Office

Logan Karjala

lkarjala@students.kennesaw.edu

Kennesaw State University:
Bachelor's of Computing and Software Engineering

Skills:

C#
Microsoft Office
Java

Taking/Completed Classes:
Discrete Mathematics
Intro to Software Engineering

Intro to Programming 1
Intro to Programming 2
Calculus 1

Chalmers Geekie
cgeekie@students.kennesaw.edu
cdgeekie@gmail.com

Major:
Computer Science
Completed Classes:
Intro to Programing 1
Intro to Programing 2
Data Structures
Discrete Mathematics
Skills:
Programing in Java and C#
Critical Thinking
Experience:
Experienced with Microsoft Word, Exel, Office

Experienced with Programming in java and C#

Technical Description:

- Client and customer download the app (website not necessary)
- Opening screen allows them to login with their personal info (save their login data)
    - Pizzeria logo above password and username/email text boxes for entering user info
    - Below info boxes is a login button and a register button (for new users)
    - Customers and staff go to slightly different pages as described below
- **Customer Login**
    - After login, customer goes to main page:
    - Logo in the top left of screen (small)
    - Permanent “back page” button to return to last page located at top right
    - Bulk of main page is the menu of the restaurant in picture form
    - Right side/bottom of the page is basic contact info for pizzeria (email/main phone)
    - Multiple drop-down menus at the top of page:
        - Order online
        - change personal info(+payment info)
        - Contact us (pizzaria company)
        - View menu
            - Bring user back to main page
    - <u>Order Online drop-down option:</u>
        - Bring to the order online page
        - **Option 1:**
            - Left side of page has picture of menu (non-interactable)
            - Right side of page has large, easy-to-read drop down menus for user to enter their order:
                - Pizza
                - Salads
                - Etc.
                - Upon selecting an item, customer may type any special requests that the pizzeria may accommodate
            - Bottom of page has list of items selected for the current order(below menu and drop-downs, preferably not out-of-the-way)
                - customer may select the amount of each item they want to order (+/- symbols next to food item name)
                - Also may change/add/remove any special requests they added previously

        - **Option 2:**
            - Left side of screen has clear image of the menu with intractable links for each item
                - Clicking the item on the menu will send it to the right side of the screen
                    - Also pop-up menu to ask user for any special requests that may be accommodated
            - Right side of screen has list of items selected for the current order
                - customer may select the amount of each item they want to order (+/- symbols next to food item name)
                - Also may change/add/remove any special requests they added previously
        - After user finishes ordering, they may continue to next page with an easy-to-see "Submit Order" button at bottom of page (bring user to payment screen)
        - Payment screen:
            - (because it is online) large window with each textbox necessary for users to type their card number, expiration date, [the number on the back], card holder name, and all relevant information
            - Scroll down page to see a detailed order summary
            - Checkbox located right above "Place order button" which is located below order summary that asks user if they would like to save their card information for next time they order online
    - <u>Change Personal Info and Payment Info drop down option</u>
        - Bring to the personal information page
        - Allow user to see all personal info in text boxes
            - Name, Address, phone number, email, all card information (subsequently card type [visa, mastercard, etc.])
            - User may backspace info and type new info back in
            - Each customer also has a unique id that they cannot see
            - Nothing permanently changes in the system until user clicks large "Submit Information Changes" button below info boxes
    - <u>Contact Us drop down option</u>
        - Bring to the contact us page
        - Puts all relevant pizzeria contact info to top-center of page in large font
- **Employee Login**
    - Same screens as customer plus some more:
    - New info on the personal information page (unchangeable info)
        - Employee I.D.
        - Hours worked since last pay
        - Current paycheck

    - A new permanent drop down menu at top of screen labeled “Staff”
        - List staff list with their job titles/descriptions
- **Manager/Owner Login**
    - In the Staff page, allow manager to select a staff member and see their “hours worked since last pay” and “current paycheck” info

Data management plan:

Customers will be allowed to set and manage their own information. Customers will be able to update profile information including name, address, contact details, and payment details. Any changes will be reflected in the database to ensure orders are accurately processed. Customers will also be able to see their order history(maybe set a time limit so the orders in the order history are deleted after a certain amount of time?). The system will also allow customers to reorder items from their order history to provide a more convenient experience with the system.

Customers will be able to change their delivery preferences, such as preferred delivery location. Customers will be able to manage their payment details securely including preferred payment method. (Loyalty Program?)

Managers will have access to a wider range of features in order for them to be able to oversee various aspects of the store's operation. Some of these features include: Updating employee information(roles, contact details, scheduling), updating the menu, order tracking, and sales analytics. This will help them keep track of analytics for specific items and see what customers like and don’t like. Managers will also have access to Financial reports, security controls, and reviews. These features will help the managers keep track of everything needed to run the pizza shop while also providing a seamless experience for the customers and ensure the confidentiality of any sensitive information in the system. The ultimate goal is to ensure a good experience for both customers and the shop owners.

Test plan :

The program will undergo a variety of tests. These include: application testing, unit testing, integration testing, performance testing, security testing, and user testing. Testing will be deemed complete based on four main conditions: program completion, all requirements are fulfilled, stability, and performance.

The program will be tested to ensure that the application is functional, reliable and secure. The individual sections of the program will be tested separately to ensure that they are correct. Components of the system will be tested to guarantee seamless and secure interaction. The program will undergo testing to ensure the security capabilities of the system.