**Pizza Restaurant Online Ordering System**

**Group 2**

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# Project Vision and Description

## Project Vision

As a team, we are here to ensure that we design and develop an online ordering system for your pizza restaurant as you wish it to be to meet all the requirements for a successful business day. Through the design and development phase, we will ensure your design is user-friendly for all customers. A system that they will want to use time and time again because it is reliable. We wish to build you a system that will be efficient for the success of your business. Doing so will encourage customer satisfaction, streamline ordering, and boost overall sales.

## Goals

* **Customer Convenience:** The interface will be easy to understand and navigate for all users. It will provide customers with a platform to place orders conveniently and quickly from any device, anywhere, a system that all users can rely on.
* **Order Accuracy:** Ensure all orders are confirmed as intended and communicated to the kitchen effectively.
* **Efficiency:** Reducing wait times for orders to be processed and communicated will streamline the order fulfillment process.
* **Scalability:** The system will be designed to handle a small volume of orders in the most docile of times and at other times when the volume is high during peak days.
* **Integration:** Seamlessly integrate their existing POS systems and delivery tracking services.

## Product Backlog

* **User Registration and Login:** Customers can create accounts to repeat logins, manage their profiles, and save favorite orders.
* **Menu Display:** Show all available menu items, including customization options (e.g., size, toppings, crust type).
* **Order Placement:** Customers can place orders, choose their method of receiving the order, whether delivery or curbside pickup, and input their desired payment method.
* **Order Tracking:** Give customers real-time updates and estimated delivery times.
* **Dashboard for Administrative Purposes:** This feature will allow the staff to manage the orders, update menu items or prices as needed, and view sales reports.
* **Notification System:** The ability to quickly send order confirmations or other pertinent information to customers in a manner that best suits them, such as e-mail or text.
* **Promotions and Discounts (optional):** Implement the required features to allow for the application of promotional codes or other discounts, which may include online coupons.

# Team Roles

## Product Owner

Michael will clearly define the vision, manage the product backlog, and ensure the entire team delivers value to the business.

## Scrum Master

Rachael will facilitate the Scrum processes, remove any impediments, ensuring the team follows Agile principles.

## Development Team

This will be a cross-functional team, including Matthew and Jackson, who will create the front and back elements and be responsible for delivering incremental product releases. To increase efficiency and manage scope, Jackson will focus on front-end needs for UI design and implementation, while Matthew will handle back-end functionalities, including database integration and development.

# Collaboration Methodology

We will collaborate as a team through Discord to discuss assignment requirements, as well as plan, review, and reflect on the sprints, addressing the following topics:

## Sprint Planning

* **Sprint Goal:** Define a clear objective for the upcoming sprint, including implementing certain features.
* **Sprint Backlog:** Stories from the product backlogs will be chosen to be completed in the impending sprint.
* **Daily Standups:** Short meetings discuss the projects, concerns, and daily plans.

## Sprint Review and Retrospective

* **Sprint Review:** Demonstrate to the stakeholders what work has been completed until then to gather feedback.
* **Sprint Retrospective:** A reflection period to identify areas of improvement for future sprints.

# The Definition of “Done”

## Scrum Team

1. **Code Quality**

* Code has been written, reviewed, and approved according to the team’s highest coding standards.
* Code is checked into the repository and has passed all automated tests.

1. **Functionality**
   * All the user stories provided have been considered and implemented to meet the acceptance criteria.
2. **Testing**
   * Unit tests are written and passed.
   * Integration tests will ensure that all critical aspects function as desired.
   * Complete user acceptance training so that feedback can be heard, considered, and implemented.
3. **Documentation**
   * User documentation has been updated to reflect the new features.
   * All technical documentation has been reviewed and updated accordingly, which may include API documentation.
4. **User Interface**
   * As desired by the business, the design reflects what was intended to be.
   * Through thorough and effective usability testing, all critical issues discovered were resolved.
5. **Performance**
   * Promoting the effectiveness of the system performance benchmarks shall be met.
   * The critical performance issues discovered have all been resolved.
6. **Security**
   * To the best of our ability, security vulnerabilities have been identified and mitigated.
   * Necessary data protection measures are implemented and tested.
7. **Deployment**
   * The increment was deployed to a staging environment and passed all applicable tests.
   * All deployment scripts and processes are up to date and thoroughly tested.
8. **Compliance**
   * The increment complies with all applicable regulations and standards.
   * Accessibility standards have also been considered and fulfilled.
9. **Feedback**
   * Feedback from the stakeholders has been collected and carefully considered.
   * The critical feedback was reviewed before all incrementations were marked as done.

## Customer Focus

1. **User Experience**

* The user interface is intuitive and easy to navigate.
* User interactions are consistently smooth and accurate, with no unexpected bugs.
* The product will appeal to current and future customers while still being authentic with the business’s brand.

1. **Functionality**

* Customers find the ordering system to have easy-to-use functions, which may include customization of orders.
* The checkout process is straightforward and not cumbersome, promoting security.
* The order confirmation and the included tracking feature function fully.

1. **Performance**

* The system is responsive with a few little load times.
* The system performs as designed with no difference between peak and non-peak hours.

1. **Accessibility**

* Adhering to the Web Content Accessibility Guidelines, anyone, including those who may be handi-cappable, finds accessibility easy and does not struggle.
* The system will offer features like screen reader compatibility and keyboard navigation as part of the same standards.

1. **Reliability**

* The system is one a customer can count on. One that is stable. No crashing or producing invalid errors.
* To protect user data, backup and recovery features are implemented.

1. **Feedback Mechanism**

* Feedback opportunities are available to customers so they may provide insight into their experience.
* Promoting that feature will allow the business to receive and review the system to make necessary improvements or find promotional opportunities.

1. **Notifications**

* Customers receive clear and timely notifications about their orders, including confirmation and order status, and an alert on delivery updates.
* Notifications are sent to the customers through the preferred channels.

1. **Testing**

* The system's usability is tested with real users, employees, and customers to meet their needs.
* Any issues identified during that process are resolved before the feature is considered done.

# Product Design

## High-Level Design:

**1. Home Page***Legal consideration: Accessibility. The application must meet any legal requirements for accessibility.*

* Link to **Login Page**
* Link to **Sign Up Page**
* Link to **Menu Page**

**2. Login Page***Security consideration: Encryption. All passwords must be stored and handled through secure hashing standards.  
Ethical consideration: Transparency. The application must clearly state how user data will be used.  
Ethical consideration: Exploitation. The application must allow users to opt out of promotional or targeted offers.*

* Enter Login Credentials (Email and Password)
  + If credentials match Existing User, display personalized banner and move to **User Page**
  + If credentials match Store Owner, display personalized banner and move to **Admin Page**
  + If the Email does not belong to an Existing User or Store Owner, display an ‘incorrect login’ message and provide a link to the **Sign Up Page**

**3. Sign Up Page***Security consideration: Encryption. All passwords must be stored and handled through secure hashing standards.  
Ethical consideration: Transparency. The application must clearly state how user data will be used.  
Ethical consideration: Exploitation. The application must allow users to opt out of promotional or targeted offers.*

* Enter Login Credentials (Email and Password)
  + If the Email matches the Existing User or Store Owner, display ‘Account with that email already exists’ and provide a link to the **Login Page**
  + If the Email does not match the Existing User or Store Owner, prompt for username (to be displayed on personalized banner) and move to the **User Page**

**4. Menu Page***Legal consideration: Intellectual Property. The application must use only licensed or original content.*

* Select from premade pizzas
  + Ability to choose item quantity and add to cart
* Build-your-own pizza
  + Ability to choose customization options and toppings
  + Ability to choose item quantity and add to cart
* Link to **Checkout Page** (if cart contains at least 1 item)

**5. User Page***Legal consideration: Data Privacy and Security. The application must comply with relevant data privacy laws.  
Ethical consideration: User Control. The application must allow users to manage and delete their data and accounts.*

* Ability to add or edit user details, like stored payment methods and stored delivery addresses
* Ability to review user order history and add historic order items to the cart (if an item is still available)
* Link to **Menu Page**
* Link to **Checkout Page** (if cart contains at least 1 item)

**6. Admin Page**

* Ability to add or edit menu Items
* Ability to set item pricing
* Ability to review store order history

**7. Checkout Page***Legal consideration: Payment Security. The application must adhere to PCI DSS for secure payments.*

* Ability to review and modify cart items
* Ability to choose in-store pickup or delivery
  + If delivery, the user will be able to choose from a stored delivery address (if logged in) or enter a new delivery address
* Ability to choose payment method
* User will be able to choose from a stored payment method (if logged in) or enter a new payment method
  + If in-store pickup, the user will have the option to pay in-store
* Ability to confirm the order and generate an email receipt

## Activity Diagram:

**A diagram of a company

Description automatically generated**

# Sprint 1 Retrospective Summary Report

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| --- |
| **Things That Went Well** |
| **The group quickly established an effective means of communication and file sharing through a Discord server hosted by the Product Owner. The group has been collaborating well through regular (virtual) stand-up meetings, and roles have been clearly defined. The group has also started utilizing GitHub as a more effective method of working collaboratively on the project.** |
| **Things That Could Have Gone Better** |
| **The first two days of the week 1 sprint were less productive than anticipated as the group worked to come together and familiarize themselves with the new group members. The final day of Sprint 1 was a bit tight, as we discovered an issue with the main executable that didn’t present itself until close to submission.** |
| **Things That Surprised Us** |
| **Despite the group’s late start to the first week, their consistent communication and commitment to a successful final product have placed them ahead of schedule. The additional implementation of GitHub as a collaborative tool has significantly helped with productivity in week 2.** |
| **Lessons Learned** |
| **The group has found the regular stand-up meetings to be far more significant to the productivity of the weekly tasks than anticipated. It plans to continue forward with a heavy focus on continued communication through additional ad-hoc meetings (as needed), one-on-one meetings with the Product Owner, and regular discussions to ensure alignment with the established vision as we progress through each week. To avoid an last-minute complications, the group should consistently and rigorously test code on multiple machines throughout each sprint, rather than waiting for all code to be completed.** |

# Sprint 2 Retrospective Summary Report

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| --- |
| **Things That Went Well** |
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| **Things That Could Have Gone Better** |
|  |
| **Things That Surprised Us** |
|  |
| **Lessons Learned** |
|  |

# Non-Development Activities

|  |  |
| --- | --- |
| **Sprint 1**   * **3/27 – Sprint 1 Preliminary Meeting**   Attendees: Full Team   * **3/29 – Week 1 Team Meeting**   Attendees: Full Team   * **3/30 – Week 1 Code Review**   Attendees: Full Team   * **3/31 – Back-End Meeting**   Attendees: Harvill, Gimutao   * **4/1 – Front-End Meeting**   Attendees: Harvill & Jarvie   * **4/3 – SCRUM Meeting**   Attendees: Harvill & Hubble   * **4/3 – Security Compliance Meeting**   Attendees: Full Team   * **4/5 – Week 2 Team Meeting**   Attendees: Full Team   * **4/6 – Week 2 Code Review**   Attendees: Full Team | **Sprint 2**   * **4/8 – Sprint 2 Preliminary Meeting**   Attendees: Full Team   * **4/10 – Week 3 Team Meeting**   Attendees: Full Team   * **4/13 – Week 3 Code Review**   Attendees: Full Team |