Circular Pie

Business Requirements Document

**Project: Circular Pie Web Application**

**Author(s) : Sarvesh Desai, Alan Parmar, Tharun Reddy, Saichand Reddy, Maneesha Narahari, Yash Kantharia, Poonam Adtani**

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# **1.** **Project Overview**

This document describes the business/user requirements for the Circular Pie applications that will provide the basis for the following project activities:

● Introducing business/user requirements

● Creating test plans and test specifications

● Identifying stakeholders

● Devising solutions to project tasks

● Produce an application that will enable users to order customized pizzas at their doorsteps

● Determining when the project is complete

● Assessing the degree to which the project succeeded

# **2.** **Document Information**

## **2.1 Audience**

|  |  |  |
| --- | --- | --- |
| **Name** | **Business Group** | **Role** |
| Advertising Customers | Advertising Sales & Management | Partner/Supplier |
| Pizza Shops | Partner Restaurants | Partner/Supplier |
| Delivery Service | Partner Restaurants | Partner/Supplier |
| Payment Merchant | Finance Management | Partner/Supplier |
| Customers | Customer Support Team | Web Application Users |

# **3.** **Business Opportunity**

**3.1 Project Overview and Background**

The idea for the pizza web application was born out of the need for a convenient and easy way for customers to order pizza from local pizza shops. The application aims to provide a one-stop-shop for pizza orders. The pizza web application will be a platform that allows customers to customize and order pizzas. The application will have a user-friendly interface that will allow customers to select their preferred crust, toppings, and other pizza options. The application will display ads from local businesses, providing them with an opportunity to reach a targeted audience.

**3.2 Current State Analysis**

The pizza delivery industry is a competitive market with several established players like Domino's, Pizza Hut, and Papa John's. However, there is still room for new players, particularly for Circular Pie as it focuses on local, artisanal pizzas. The COVID-19 pandemic has also shifted customer behavior towards online ordering and contactless delivery, creating an opportunity for web applications. Partnership with local pizza shops will offer a wider variety of pizzas. Displaying ads from local businesses will provide them with a cost-effective way to reach potential customers. The project will make use of a MySQL relational database and be written in JavaScript. The project's development at Pace University will take place over the course of two semesters and is now in the planning stages.

**3.3 Future State Objectives**

One of the key objectives for Circular Pie could be to increase its market share. This can be achieved by expanding into new geographic markets, improving the customer experience, and offering unique and differentiated pizza options that stand out from the competition. Another objective could be to enhance data analytics capabilities. This can help to better understand customer preferences and behavior, improve decision-’making, and optimize marketing and advertising efforts. We would also add the feature of live tracking for the pizza delivery to have the user engaged with the platform after ordering. This would provide an opportunity to display offers and partner ads on the tracking screen.

**3.4 Business Domain Model and Stakeholders**

|  |
| --- |
| **Stakeholders** |
| Advertising and Sales Team |
| Customer Support Team |
| Orders & Delivery Team |
| Pizza Shops |
| Advertising Customers |
| Delivery Service |
| Payment Merchant |
| Customers |

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# **4.** **Business Requirements**

The primary users of the Circular Pie application will be able to create the account by and login to the website. The Portal’s home page will provide customers with a user-friendly interface that will allow them to check the menu and other options like combo deals. The website allows customers to place orders online for delivery or pickup. The user completes the payment with Payment Gateway System for more convenience for the user. The user will get to know the order status and estimated time of arrival by checking in the website.

## **4.1 Details of Business Requirements**

* + 1. **Advertising & Sales Management**
       1. Ability to log in
       2. Ability to generate ads on the web application
       3. Ability to maintain content of an ad
       4. Ability to filter ads content
       5. Ability to keep ads up to date
       6. Ability to do market analysis
       7. Ability to understand product performance
       8. Ability to promote sponsored posts
    2. **Partner Restaurants**
       1. Ability to log in
       2. Ability to send the confirmation that order is being prepared
       3. Ability to send the confirmation that the order is ready for delivery
       4. Ability to send the confirmation that the order was delivered
       5. Ability to submit the billing
       6. Ability to manage the containers of the specific subscription plan
    3. **Customer Support Team**
       1. Ability to respond effectively through the customer support page
       2. Ability to update the open ticket as closed or resolved
       3. Ability to provide the customers with ticket resolution
    4. **Business Management**
       1. Ability to log in
       2. Ability to maintain customer accounts
       3. Ability to receive real-time data on product supply
       4. Ability to send/receive changes in stock based on product orders
       5. Ability to assign tasks on daily basis
       6. Ability to handle the communication between various departments
    5. **Finance Management**
       1. Ability to process the payments.
       2. Ability to issue refunds.
       3. Ability to process retail merchandise payments.
       4. Ability to apply/issue discounts.
    6. **Subscribed Customers requirements** 
       1. Registration and updated account: Customers are required to register on our platform, fill in the registration information correctly, modify the created account information, delete his/her created account when no longer required.
       2. Accurate information: Customers are expected to provide accurate information when placing an order, including their name, delivery address, and payment information.
       3. Adherence to policies: Customers are expected to adhere to the pizza delivery site's policies, such as minimum order requirements, delivery fees, and returns or refunds policies.
       4. Password: Update the strong password with the validations.
       5. stop a subscription if the subscription is not needed any more and similarly provide payments for all the subscriptions.
       6. Customer Support: Reach to customer support services if facing any difficulties.
       7. Setup: Proper setup for running the web application (communication device with a stable
       8. internet connection).
       9. Rate and Reviews: Provide proper reviews and ratings about the services and goods they have used.
       10. Timely response: Customers are expected to respond promptly to any communication from the pizza delivery site, such as confirmation emails or delivery updates.
       11. Respectful behaviour: Customers are expected to treat the pizza delivery site's staff with respect and courtesy, both in-person and online.
       12. Payment on time: Customers are expected to pay for their pizza orders on time and in the agreed-upon manner.
       13. Cooperation with delivery instructions: Customers are expected to cooperate with delivery instructions provided by the pizza delivery site's staff, such as providing clear directions or meeting the delivery driver at a specific location.

# **5.** **Non Functional Requirements**

|  |  |
| --- | --- |
| **Category** | **Requirements** |
| **Usability** | The application GUI will provide a user-friendly intuitive design with all the features clearly displayed for the user |
| **Usability** | The application navigation will be self-explanatory by clear and concise descriptions and names of each section, as well as features will be clearly evident by proper location and naming |
| **Usability** | Accessibility will be supported for the disabled users as well |
| **Performance** | The application will be supported on different operating systems and browsers, and should not impact the user’s system capabilities |
| **Performance** | The application will be available for 24/7 without any interruptions, and regular maintenances will be scheduled to support the application |
| **Performance** | The application will support the concurrency where the users will be able to simultaneously browse the app, login & subscribe, make payments, shop the products |
| **Performance** | The application will have short response time to all requests and all the features should be available and not impacted by latency |
| **Security** | The application will be using the automated daily & weekly audits to detect the vulnerabilities. |
| **Security** | The application will use HTTPS protocols for any data exchanges, enforced TLS for all the email communications, and other encryptions that will be maintained on the server |
| **Database** | The application will be using the MySQL database |
| **External System** | The application will be able to interface with the external data feeds from and to payment merchants, ad agencies, social media websites, etc.… |

# **6** **External Data Feeds**

* Process Payments
  + It enables customers to pay securely via payment gateway for the items they purchased.
* Customer Support
  + Customers can easily contact the customer service, submit the complaints for resolution and get answers to their inquiries as soon as possible.
  + Allows the customer service department system to feed the information to the client’s account on Circular Pie with the answers to customer’s information inquiries and update the clients on their submitted complaints by providing the information received from the source of the issue and providing the resolution.
* Receive, track and update order
  + It receives the order from the customer, it can track the order and also update the order according to the customer needs.
  + It then provides all the information to business management department of Circular Pie.
* Coordinate with various business stakeholders
  + Business management enables the communication between various department to enable smooth order processing
  + It tracks all the daily activities, stock inventories and other management activities
* Display Ads
  + Advertisements are run based on the user’s browsing history throughout the website.

# **7.** **Business Risks**

# One of the biggest business risks for Circular Pie is the competition from established food delivery services like Uber Eats, Door Dash, and Grub hub, as well as emerging pizza delivery startups. This competition can impact customer acquisition, retention, and pricing strategies, and may require the development of unique and differentiated pizza options to stand out from the competition. Another major risk is the dependence on third-party delivery partners for the logistics of delivery. This can result in potential quality issues, legal and reputational risks in case of delivery incidents, and challenges in maintaining consistency in the quality of pizza across multiple local pizza shops and delivery partners. The business will ensure regular communication with delivery partners, and establish clear guidelines and policies for delivery incidents. Regulatory and legal risks are also a concern, as changes in regulations and policies around food safety, delivery, and advertising can result in potential compliance challenges and legal risks. The business will have to stay up-to-date on relevant regulations and policies, maintain compliance with industry standards and regulations, and work closely with legal and regulatory experts to navigate potential risks.

From the technical perspective Cybersecurity risks are also a potential issue, as the web application collects and processes sensitive customer information, including payment information, which can be vulnerable to cybersecurity breaches, resulting in reputational and financial risks. To mitigate cybersecurity risks, the business will implement robust data security measures, ensure regular security assessments, and work with cybersecurity experts to identify and address potential vulnerabilities.

Lastly, the display of ads from local businesses can result in potential ad fatigue and negative impact on user experience, affecting customer acquisition and retention. The business will establish clear guidelines for displaying ads, limit the frequency of ad displays, and focus on building a strong and engaging user experience that prioritizes customer satisfaction.