**QR Yummy Application**

**Business Requirements Document**

Project: QR Yummy Application

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# 1. Project Overview

This document describes the business/user requirements for the QR Yummy Application that will provide a 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 buy high-end designer goods directly from the website
* Determining when the project is complete
* Assessing the degree to which the project succeeded

# 2. Document Information

**2.1 Audience**

|  |  |  |
| --- | --- | --- |
| **Name** | **Business Unit** | **Role** |
| Advertising Media | Advertising Management | Supplier/Partner |
| Service /Goods Providers | Subscription Management,Finance Management,Advertising Management | Supplier/Partner |
| Payment Merchants | Finance Management | Supplier/Partner |
| Bank | Finance Management | Supplier/Partner |
| Registered Users | Subscription Management,Finance Management,Advertising Management | Web Application Users |
| Subscribed Restaurants | Subscription Management,Restaurant Stores Management | Supplier/Partner |

# 3. Business Opportunity

**3.1 Project Overview and Background**

Restaurants have become a crucial part of weekend or holiday go-to routine in many people’s lives. Having to wait to order one’s food can be irritating and undesirable.As we know that most of the customers or any users these days just go for the quick glance or overview of menu to know about it and impatiently wait for the waiter to arrive, so keeping in that mind, QR Yummy is our attempt to solve this problem.QR Yummy is a web application which allows usersto order food from restaurants without having to wait for the waiter.

**3.2 Current State Analysis**

One of the best examples of the current sites is upmenu.com. QR Yummy will provide consumers with a similar service utilizing an attractive and intuitive interface. The project will be written in Python and JavaScript and will use a relational database produced by SQL. The planning process for the application is currently underway, and the development of the project will span two semesters at Pace University.

**3.3 Future State Objectives**

The objective is to create a web application that will be helpful to customers in the restaurant, saving their time. The website will offer a wide variety of options and will allow users to order within no time. Customers can save time in ordering, which also improves sales in the restaurant. So, that is a win-win.

**3.4 Stakeholders**

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| --- |
| **Stakeholders** |
| *Service/Goods Providers* : These are the service providers that use the website to add their services and get reviews on those services. They also provide reviews to the users that used their services. |
| *Payment Vendors :* The vendors we would use to get the payment processing on the website. |
| *Advertising Media* : The social media where we will promote our website. |
| *Potential customers* : The users use the website to search for the service providers and provide feedback to the service providers on the website. |

# 4. Business Requirements

**4.1 Business Scope**

The primary users of QR Yummy will be able to directly order food from restaurant without having to wait. This web application has several components such as

1. An Admin panel for our subscribed service providers and sellers.

2. Payment gateway to handle payments.

3. A Cart to add the items to be ordered.

4. Advertise media to advertise discounts and coupons.

**4.2 Details of Business Requirements**

**4.2.1 Advertising Management**

4.2.1.1 Ability to generate ads on the web application

4.2.1.2 Ability to filter ad contents

4.2.1.3 Ability to maintain content of an ad

4.2.1.4 Ability to keep ads up to date

4.2.1.5 Ability to get product performance

4.2.1.6 Ability to promote sponsored posts

**4.2.2 Subscription Management**  
  
4.2.2.1 Ability to create an account  
  
4.2.2.2 Ability to modify the account information  
  
4.2.2.3 Ability to restore the password/user ID details  
  
4.2.2.4 Ability to sign in to (sign out from) already created account  
  
4.2.2.5 Ability to select the subscription plan  
  
4.2.2.6 Ability to pay for subscription plan  
  
4.2.2.7 Ability to add description of their product or service.  
  
4.2.2.8 Ability to give a feedback

4.2.2.9 Ability to delete an account

**4.2.3 Finance Management**

4.2.3.1 Ability to allow payment processing

4.2.3.2 Ability to verify payment form (i.e. check credit card activation)

4.2.3.3 Ability to post order amount on customer’s account on QRYummy

4.2.3.4 Ability to post order amount on customer’s corresponding bank statement  
  
4.2.3.5 Ability to issue refunds  
  
4.2.3.6 Ability to process the plan subscription payments  
  
4.2.3.7 Ability to apply/issue discounts

**4.2.4 Registered Customers requirements**   
  
4.2.4.1 Ability to create an account  
  
4.2.4.3 Ability to modify the account information  
  
4.2.4.4 Ability to restore the password/user ID details  
  
4.2.4.5 Ability to sign in to (sign out from) already created account  
  
4.2.4.6 Ability to review a service or product  
  
4.2.4.7 Ability to rate a product  
  
4.2.4.8 Ability to search the related business or service providers

4.2.4.9 Ability to delete an account

**4.2.5 Service/Goods Provider requirements**  
  
4.2.5.1 Ability to create an account.  
  
 4.2.5.2 Ability to modify the account information  
  
 4.2.5.3 Ability to restore the password/user ID details  
  
 4.2.5.4 Ability to sign in to (sign out from) already created account  
  
 4.2.5.5 Ability to add their service/goods information  
  
 4.2.5.6 Ability to add promotions/coupons  
  
 4.2.5.7 Ability to select the category for service/goods  
  
 4.2.5.8 Ability to receive order details from customer  
  
 4.2.5.9 Ability to deliver services as per user requests

4.2.5.9 Ability to delete an account

**4.2.6 Subscribed Restaurants**

4.2.6.1 Ability to create an account.  
  
 4.2.6.2 Ability to modify the account information  
  
 4.2.6.3 Ability to restore the password/user ID details  
  
 4.2.6.4 Ability to sign in to (sign out from) already created account  
  
 4.2.6.5 Ability to add their service/goods information  
  
 4.2.6.6 Ability to add promotions/coupons  
  
 4.2.6.7 Ability to select the category for service/goods  
  
 4.2.6.8 Ability to receive order details from customer  
  
 4.2.6.9 Ability to deliver services as per user requests

4.2.6.9 Ability to delete an account

5. Non-Functional Requirements

|  |  |
| --- | --- |
| Category | Requirements |
| **Performance** | The performance should be good enough to meet the user needs. |
| **Operating** | Access to a stable internet connection. |
| **Interface** | The interface should be user-friendly and accessible. |
| **Security** | The application should include confidentiality as dealing with money transactions and personal details. |
| **Scalability** | The system should be scalable to adapt to small changes |
| **Availability** | The portal should be available to all subscribed or registered users. |
| **Reliability** | The system should be dependable and trust-worthy. |
| **Performance** | The application will be available for 24/7 without any interruptions, and regular monitoring will be done to support the application |
| **Database** | AWS RDS(MySql) |
| **Serverside** | Python |
|  |  |

# 6. External Data Feeds

**6.1 Social Media**

6.1.1 Shares the deals and advertising in social media

**6.2 Ad Agency Organisation**

6.2.1Takes care of Marketing, sales and promotions.

**6.3 Bank/Wallet Payment System**

6.3.1 It helps QR Yummy in transferring payments to bank account.

6.3.2 It helps QR Yummy record transactions when refund is needed.

6.3.3 It helps QR Yummy in reflecting the amount paid in the customer’s account.

**6.4 Restaurant Management**

6.4.1 Delivering order to the table.

6.4.2 Checking or preparing received orders.

# 7. Business Risks

Although QR codes have numerous useful applications, bad actors can also use them for malicious purposes. In January 2022, the FBI released a [warning](https://www.ic3.gov/Media/Y2022/PSA220118) that cybercriminals may tamper with QR codes to direct victims to malicious websites. Scammers often look to the latest trends for new cybercrime tactics.

There are two main types of QR code exploits that cybercriminals use. The first is a QR code-based [phishing](https://www.techtarget.com/searchsecurity/definition/phishing) attack, which is sometimes called quishing. This attack uses a QR code to lure a victim to a phishing page that hackers have designed to steal the victim's credentials, personal data or other sensitive information.

The other main type of QR code attack is sometimes called QRLjacking. In this type of attack, hackers use a QR code to spread malware to the victim's device. The attacker tricks the user into scanning a QR code that directs the user's device to a malicious URL, which infects the device with malware.

Besides these two basic types of attacks, QR codes can launch other types of actions at the device level. For example, a hacker might use a QR code to automatically place a phone call or send a text message from the device that scanned the code. Under the right circumstances, hackers can even use QR codes to initiate a payment from the user's device or force the device to join a certain Wi-Fi network.

There are three things that organizations must do to protect users against QR code-based attacks. Consider the following steps to avoid the potential consequences of a fraudulent QR code:

1. Make sure that users are running security software on any device that has access to corporate resources. The software should be able to protect against device takeover attacks, phishing attacks and other mobile device exploits.
2. [Educate users on the cybersecurity dangers](https://www.techtarget.com/searchsecurity/post/4-ways-to-build-a-thoughtful-security-culture) associated with scanning QR codes. Otherwise, users may not realize that QR codes can be problematic.
3. Implement [multifactor authentication (MFA)](https://www.techtarget.com/searchsecurity/definition/multifactor-authentication-MFA) requirements across the organization as an interim, and then gradually work on adopting an authentication solution that does not rely on passwords. Many QR code-based attacks are designed to trick users into entering their passwords so that cybercriminals can steal their credentials. Working toward the elimination of passwords can help to thwart these types of attacks.

Given that there are not many websites that cater to this specific niche market, high-end designer goods, all web applications face high levels of competition since the vast majority of transactions are done through the internet. One key strategy to mitigate this risk is by keeping our website user-friendly, simple to use with a continually growing list of QoL (quality of life) features that makes product browsing and purchasing less of a hassle for users. Another way to mitigate customer flight is by constantly advertising and notifying users of deals and newly listed designer products, either through ads or by email. On the technical side of business risk some of those include the application malfunctioning and the product listings not being updated in real time. For the former, the primary goal of the testing portion of the website rollout would be to eliminate the majority of bugs in the system before going live with the website. For the latter, this would require, after activating the website, always monitoring external sources and ensuring they are correct.