**NutraMeals Web Application**

**Business Requirements Document**

Project: NutraMeals web application

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Table of Contents

Contents

[**1.** **Project Overview** 3](#_Toc97204813)

[**2.** **Document Information** 3](#_Toc97204814)

[2.1 Audience 3](#_Toc97204815)

[**3.** **Business Opportunity** 3](#_Toc97204816)

[3.1 Project Overview and Background 3](#_Toc97204817)

[3.2 Current State Analysis 3](#_Toc97204818)

[3.3 Future State Objectives 4](#_Toc97204819)

[3.4 Business Domain Model and Stakeholders 4](#_Toc97204820)

[**4.** **Business Requirements** 5](#_Toc97204821)

[4.1 Details of Business Requirements 5](#_Toc97204822)

[**5.** **Non-Functional Requirements** 5](#_Toc97204823)

[**6.** **External Data Feeds** 6](#_Toc97204824)

[**7.** **Business Risks** 6](#_Toc97204825)

# **Project Overview**

This document describes the business/user requirements for NutraMeals web application 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 subscribe to various subscription plans and receive the healthy products that are easy to prepare at their doorsteps
* Determining when the project is complete
* Assessing the degree to which the project succeeded

# **Document Information**

## 2.1 Audience

|  |  |  |
| --- | --- | --- |
| Name | Business Group | Role |
| Ad Agencies | Advertisement Management | Partner/Supplier |
| Sales Team | Sales and Marketing Group | Partner/Supplier |
| Payment Merchants | Finance Group | Partner/Supplier |
| Customers | Customer Support Group | Web Application Users |
| Restaurants | Partner restaurants | Partner/Supplier |

# **Business Opportunity**

## 3.1 Project Overview and Background

The goal is to create a Web Application that will provide users with a user-friendly interface that will allow them to browse restaurants and their respective menus which are nutritious and healthy. Users will be provided with different subscription plans that will allow them to select from the available meal plans and keep using the food delivery service for the specified number of days. The application will also offer the ability to create the list of favorite products, rate the products and leave the reviews for the products.

## 3.2 Current State Analysis

People have been through difficult times during the pandemic with the lockdown and testing positive for covid, which has severe impact on one’s health. This has brought into limelight the importance of eating good food and building immunity to safeguard oneself.

As a person is diagnosed with COVID virus he/she must go under isolation. This poses a challenge for the patient to shop and prepare food. The purpose of the project is to offer healthy meals to people at an affordable cost and deliver them. With the system we will be developing, users can use it to browse restaurants, their menus, select meal plans that suit them best and have them delivered to their doorstep.

Through “NutraMeals” website we present a comprehensive solution for meal planning and delivery. Its intuitive visual interface will make selecting healthy meal plans and placing orders easy and affordable for the users. The project will be written in Java, HTML, CSS and will use a relational database MySQL. 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 able to compete in a very crowded marketplace of healthy food meals. The web application will offer a variety of healthy food options and meal plans at an affordable rate. Users will gain value from the website due to the offered ability to select from a variety of meal plans and delivery to their doorsteps, all at nominal costs.

## 3.4 Business Domain Model and Stakeholders

|  |
| --- |
| Stakeholders |
| Partner Restaurants |
| Payment Merchants |
| Delivery Partners |
| Advertising Agencies |
| Subscribed Customers |

Diagram

Description automatically generated

# **Business Requirements**

The primary users of the NutraMeals application will be able to create accounts and subscribe to various subscription plans that will indicate the meal plan they choose to get delivered for the specified number of days. They will also have the option of proceeding without opting for a meal plan and order on the fly. They will be able to browse and search restaurants, their menus, add items to cart, place orders and make payments. They will also have the option of viewing their order history. Customers will be able to reach out to NutraMeals’ customer support groups for help and FAQs. They will also be able to view ads while surfing the web application.

## 4.1 Details of Business Requirements

* + 1. **Sales and Marketing Group**
       1. Ability to add details of a new restaurant and its menu
    2. **Finance Group**
       1. Ability to process customer and merchant payments
    3. **Customer Support Group**
       1. Ability to add FAQs on the customer support page
    4. **Advertising Management Group**
       1. Ability to generate/post an advertisement on the website
    5. **Subscribed customers**
       1. Ability to sign up
       2. Ability to log in
       3. Ability to sign out
       4. Ability to search for restaurants
       5. Ability to view restaurant menus
       6. Ability to add menu items to cart
       7. Ability to remove menu items from cart
       8. Ability to place an order with the restaurant
       9. Ability to view order history
       10. Ability to enter payment information
    6. **Restaurant/Vendors**
       1. Ability to receive/view order information from customers

# **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. |

# **External Data Feeds**

* **Customer Services System**
  + Form submission that the customers can use to contact customer service, submit the complaints for resolution/create tickets and get answers to their inquiries.
  + Allows the customer service department system to feed the information to the client’s account with the answers to customer’s information inquiries and update the clients on their submitted complaints/tickets by providing the information received from the source of the issue and providing the resolution.
* **Payment Gateway System**

Enables the customers to pay for the plan subscriptions, and retail merchandise that are not part of the subscription plan by processing the payment by authenticating and charging the credit cards or other payment means.

Enables the customers to receive the refunds in case the order got lost or there is an issue with the products in the order by processing the refunds by crediting back the funds.

* **Delivery System**

NutraMeals web application sends the order details and delivery location to the delivery partners and a notification that the payment is cleared to process the order.

Provides ability to the delivery partners to view order status updates and tracking numbers for the orders.

* **Ads Platform System**

Feeding the application with the sponsored posts, the contract length, and costs of the advertisements.

NutraMeals will generate reports for trend analysts and feed the ads platform system/agencies with the data on product performance and market analysis.

# **Business Risks**

Our application is targeting a market of individuals who want to pursue a healthy lifestyle and people who have tested positive for covid19 and are unable to cook, shop and are looking for healthy and affordable meal plans. Owing to the past couple years of the pandemic, the importance of eating good food and building immunity to safeguard oneself has come to limelight. The trend of moving towards a healthier lifestyle in on the rise, and so will be the competition for our business. Competition risks will be mitigated by differentiating our products from others in the market by offering a lot of healthy food options and subscriptions at affordable costs. Offering a variety of subscription plans will also keep the customers stay loyal to our company. By constantly analyzing the market and product performances we will be able to work on and introduce new features to be added to the application to keep the current clients and attract new customers. Market and product performance will also allow us to come up with successful product offerings.

From the technical perspective the company can face the risk of the software malfunctioning and cyber-attacks. There is a constant concern of vulnerabilities such as SQL Injection (SQLI), Cross-Site Scripting (XSS), Traversal Directory (TRV), Local File Inclusion (LFI) and Remote File Inclusion (RFI), Shell Code Injection, Directory Indexing (DI), Open Redirect (ORED), File Discover (FD), Common Vulnerabilities & Exposures (CVE) and others. The application will be subjected to automated daily & weekly audits to detect the vulnerabilities. It will also use HTTPS protocols for any data exchanges, enforced TLS for all the email communications, and other encryptions that will be maintained on the server. There is also a risk of application not being able to adapt to the new technologies fast enough to support the applications and stay competitive on the market. Maintaining and reusing the requirements and following AORA (aspect orients requirement analysis) will help our business to adapt faster to changes and develop new and upgraded features with ease and without waste of time on starting the projects from scratch.