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|  | **Restaurant Management System** |
| Project Vision Document | |
| **Version 1.0** | |
| 26/09/2019 | |

**Revision History**

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| 1 | 26/09/2019 | Thanh Quan, Tu Nguyen | Thong Nguyen, Quang Pham | Finish the Introduction part of the Project Vision Document |
| 2 | 29/09/2019 | Thong Nguyen | Thanh Quan, Quang Pham, Tu Nguyen | Finish the entire Project Vision Document |

**Document Approval List**

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# Introduction

Our vision is to simplify restaurant managements’ daily tasks, and to increase restaurant employees’ productivity

## Purpose

The Restaurant Management Project Vision Document will provide a definition of the project including project objectives, scopes, and business opportunities. Also, this document will introduce to readers system features, and technological tools that are employed to achieve those features. Finally, this document will analyze some problems and constraints that is possible to be encountered when developing this project, so that all of our team members can build a comprehensive roadmap for the success of this application.

## Scope

The Restaurant Management System project is for the creation of a contemporary restaurant management web application. The technology that our team uses to build up this project include the Angular 2 as the front-end framework, and Node.js as the main back-end language. Our team also utilizes Docker, and Kubernetes as tools for dealing with multiple platforms using, and application scaling. The user interface will be designed as minimal as we can so that everybody feels easy to use this application. There will be a corresponding application written with NativeScript for iPhones and Android based systems so that users can have the flexibility to use our app. The app must also include a tutorial to make it easy to get started,

### In Scope

As far as the scope is concerned, this project is set to target all the medium-sized and large-sized restaurants in Ontario which need a complicated process of management.

### Out of Scope

Franchises, small-sized and large-sized restaurants that could already have their own well-built management system or could physically manage their restaurant.

## Definitions, Acronyms, and Abbreviations

|  |  |
| --- | --- |
| **Term** | **Explanation** |
| BOH | Back of house employee including Kitchen staffs, Chefs |
| FOH | Front of house employee including Bartender, Servers, Host and Hostess, Cashier. |
| MEAN | MongoDB, Express, Angular, Node.js programming language combined to create a full stack |
| Full stack | An implementation in which the application is working with both front-end and back-end to serve the client |
| Front-end | Interface of the application where user can see and interact with. |
| Back-end | Logical thinking and information storage where user interface won’t be able to access directly and see. |
| Docker | Docker is a containerization platform that packages your application and all its dependencies together in the form of a docker container to ensure that your application works seamlessly in any environment. |
| Kubernetes | Kubernetes is an open-source container management (orchestration) tool. It’s container management responsibilities include container deployment, scaling & descaling of containers & container load balancing. |
| NativeScript | How you write truly native cross-platform mobile applications with JavaScript, TypeScript or Angular |

## References

| **Reference File Name** | **Version** | **Description** |
| --- | --- | --- |
| MAZARS – 2018 AI IN HOSPITALITY STUDY | 1.0 | This is a study about how AI is used in developing Hospitality applications |

This section also contains links to all other places that were referred to in this document. These may include:

* Web sites
* URLs or network locations

|  |  |
| --- | --- |
| **Name** | **Link** |
| Example of Stakeholder Analysis | <https://www.brighthubpm.com/monitoring-projects/10426-example-of-stakeholder-analysis/> |
| Definition of NativeScript | <https://www.nativescript.org/faq/what-is-nativescript> |
| How to Write a Project Scope Statement | <https://www.projectengineer.net/how-to-write-a-project-scope-statement/> |
| Role of Team and Stakeholders | <https://www.greycampus.com/opencampus/certified-associate-in-project-management/role-of-team-and-stakeholders-in-a-project> |
| What is Docker & Docker Container ? | <https://www.edureka.co/blog/what-is-docker-container> |
| What Is Kubernetes? An Introduction To Container Orchestration Tool | <https://www.edureka.co/blog/what-is-kubernetes-container-orchestration> |

# Positioning

## Business Opportunity

Redesigning the old-fashioned working system of most medium-sized restaurants in Ontario

## Problem Statement

|  |  |
| --- | --- |
| The Problem of | Paper-based document management. |
| affects | Manager, BOH employees, FOH employees. |
| the impact of which is | Lack of storage space, Prone to natural damage, supply costs, inefficient document transportation, editing problems, tracking problems |
| a successful solution would be | Digital database to store, receive, edit information in which displays in a friendly interface. |

Table 1 Problem Statement

## Product Position Statement

|  |  |
| --- | --- |
| For | Restaurant managements |
| Who | Wants to simplify the management processes, easy access to necessary information. |
| The Restaurant management system | Is a web application developed and deployed using the MEAN Stack. |
| That | Allows restaurant managements to easily manage their day-to-day business, and restaurant staffs to better interact with their managers |
| Unlike | Existing applications that generally focus on some specific parts of the restaurant |
| Our product | Will provide a comprehensive system that every manager needs to enhance the flow of their business |

Table 2 Product Position Statement

## SWOT Analysis

## <Reference: <https://www.businessballs.com/strategy-innovation/swot-analysis/>)

|  |  |
| --- | --- |
| **Strengths** | **Weaknesses** |
| **Offers an up-to-date user interface** | **Supports only a limited number of locations** |
| **Introduces a comprehensive management system** | **Team members lack practical experience** |
| **Offers a reasonable cost** | **Limited budget** |
| **Possibly include data model in the future to bring to users a better experience** |  |
| **Opportunities** | **Threats** |
| **Could extend to all Canadian and overseas.** | **Users tend to stay in their comfort zones by sticking to the well-known products** |
| **Local competitors have poor products** | **The development of new applications that employs AI to personalize user experience may change the market demand** |
| **Have some possible end-users to contribute some new ideas for the development of this application** | **Lacks money to broadly run and advertise our app** |

# 3. Stakeholder and User Descriptions

The Restaurant Management System will stakeholders consist of eight people who have different backgrounds including College Professor, Restaurant Manager, Restaurant Staffs, and Developers. As far as the College Professor is concerned, our professor Mrs. Anjana Shah will be a trustworthy source of knowledge and information for our team to ask throughout our developing process. With regard to specialists from the industry, since they have practical experience working with Restaurant Management System, they can provide us with valuable pieces of advice so that we can successfully develop our app. As for the developer team, they are the ones who will be directly building the application, and thus they will determine the success of the entire project

## 3.1 Stakeholder Summary

| Stakeholder Name | Represents | Role |
| --- | --- | --- |
| Anjana Shah | Instructor, Evaluator | A knowledgeable professor who will instruct and assist our team in developing a successful application |
| Roberto Scala | Restaurant manager - Potential End User | An experienced manager in restaurant management that our team can consult his ideas to adapt our app to market demand |
| Rebecca Gutierrez | Server - a potential end user | A new professional server that can bring her practical experience to help our team accomplish our features for FOH employees |
| David Robinson | Kitchen Staff – Potential End User | A skillful chef that can help our team with his practical experience to accomplish our features for BOH employees |
| Quang Pham | Front-End Developer – Team Member | A Junior Developer with a great passion for programming who can apply his knowledge to help our team build a reliable, user-friendly Front-End for users |
| Thanh Quan | Front-End Developer – Team Member | A Junior Developer with a great passion for programming who can apply his knowledge to help our team build a reliable, user-friendly Front-End for users |
| Tu Nguyen | Back-End Developer – Team Member | A Junior Developer with a problem-solving and system-designing skill who can help us to optimize our system |
| Thong Nguyen | Full-Stack Developer – Team Leader | A Junior Developer with a good leadership and great overall knowledge that can encourage team members |

Table 3 Stakeholder Summary

## 3.2 User Summary

| **User Name** | **Description** | **Responsibilities** | **Stakeholder** |
| --- | --- | --- | --- |
| Anjana Shah | Project Instructor and Evaluator | - Instruct our team to achieve a successful project  - Evaluate our process of development from start to end | Already a stakeholder |
| Roberto Scala | One of the stakeholders who contribute to the development of the application | - Give requirements that the system need to have  - Provide pieces of advice to develop the system | Already a stakeholder |
| Rebecca Gutierrez | One of the stakeholders who contribute to the development of the application | - Provide pieces of advice to develop the system | Already a stakeholder |
| David Robinson | One of the stakeholders who contribute to the development of the application | - Provide pieces of advice to develop the system | Already a stakeholder |

Table 4 User Summary

# 4 Stakeholder Requirements

| **ID** | **Requirement** | **Stakeholder** |
| --- | --- | --- |
| 1 | - A user-friendly, functional and easy-to-use management system to help managing restaurant resources | Roberto Scala |
| 2 | - A system that can simplify inventory checking process, and efficiently improve the process of forwarding order from station to station | David Robinson |
| 3 | - A system that can has help user to track their schedule and efficiently assist FOH employees in interacting with BOH employees | Rebecca Gutierrez |

Table 5 Stakeholder Requirements

# 5 System Features

| **ID** | **Feature** | **Stakeholder Requirement ID** |
| --- | --- | --- |
| 1 | Restaurant Dashboard that helps managers visualizing profits, both human and other resources | 1 |
| 2 | Staff Scheduling | 1 |
| 3 | Inventory Managing | 1, 2 |
| 4 | View Schedule | 3 |
| 5 | Availability Report | 1, 3 |
| 6 | Order Handling | 2, 3 |

Table 6 System Features

# 6 Assumptions

The following assumptions were made in preparing Project Vision Document:

- Our team members are willing to learn new technology which is NativeScript, Docker, and Kubernetes

- Those mentioned industrial specialists are ready to help wherever they can

- The developing process cost will not go over the planned budget so that we can keep our product price reasonable

- Project team members can collect a comprehensive data set to train a model and include in the application

- Number of project stakeholders will change since we are still approaching to more industrial experts

# 7 Constraints

*-* Project team funding is limited

- Time constraint because our team members are simultaneously working on different projects

- Team members lack the experience to work on an actual software development project