Vision and Scope Document

for

WaitrApp

Version 1.0 Approved

LUT course: CT70A2000 Requirements Engineering of Autumn 2021

13.10.2021

Table of Contents

Revision History

Name / Role	Date	Reason For Changes	Version
Group W Project Manager (PM)	07.9.2021	Creation of the base document after meeting Wendy's Vegburger CEO, Wendy Weston. Based on the Group W common template.	0.1
Group W Requirements Engineer (RE)	09.9.2021	Group joint review (8.9.2021) meeting modifications.	0.2
Group W RE	10.9.2021	Updates to the document as agreed with Wendy W.	0.3
Group W RE	14.9.2021	Updates on the document based on the initial elicitation meetings with Line cooks, Waiters and Cindy Weston	0.4
Group W PM	15.9.2021	Final updates and Baseline version of Vision and Scope agreed with Wendy Weston	0.5
Group W Designer	08.10.2021	Developer sign-off	0.6
Group W Designer	13.10.2021	Approvals with customer	1.0

1. Business Requirements

Wendy's Vegburger is a rapidly growing restaurant in Lappeenranta city. The restaurant started small, and a pen and paper were enough to take in and keep track the orders. Due to the increasing demand and number of customers, the restaurant has led to difficulties managing the order-taking process. Thus, the restaurant needs to develop the process and streamline the overall process of serving the customers.

1.1. Background

Compared to last year, Wendy's Vegburger will have significantly more customers this year. With the current number of personnel and ordering method, the restaurant is facing difficulties serving customers properly. Too often, waiters are occupied with taking orders from multiple customers within a short period of time, and in a hurry the orders get mixed up easily. Customers have been complaining about the slow service and getting dishes they did not order.

The restaurant conducted a customer satisfaction survey, and the results were poor: the circumstances have already impacted to customer satisfaction as well as the restaurant's reputation negatively. The management started to look for ways to improve Wendy's Vegburger's ordering process and found out that there are mobile applications that can help with the ordering process by freeing time from restaurant's staff while increasing the order accuracy. The order management application can also reduce a queueing and waiting time of customers and hence increase the customer satisfaction and number of returning customers. Moreover, it will reduce the operating costs and increase revenue.

1.2. Business Opportunity

The business problem of Wendy's Vegburger restaurant is that the service is slow, and the orders are not accurate. This causes loss in revenue when customers are not willing to wait for the slow service nor return to the restaurant again. It also increases costs in food waste and redoing orders. The Order management application WaitrApp allows personnel to handle orders faster and in better accuracy, thus reduce costs and increase revenue. The application will also improve customer satisfaction.

1.3. Business Objectives and Success Criteria

The measurable business objectives and the success criteria for implementing WaitrApp are:

- *Revenue*: The order management application will increase the income of the business

- *Cost savings*: WaitrApp will help to reduce the costs in food waste and redoing orders

- *Efficiency*: Capability to handle number of customers at the same time will increase

- *Employee satisfaction*: Results of employee satisfaction surveys will improve

- *Customer satisfaction*: Results of customer satisfaction surveys will improve

- *Customer retention:* The number of returning customers will increase

1.4. Customer or Market Needs

The requirements for the WaitrApp application are:

Business requirement ID	Requirement description
BR-01	The application must be integrated to the existing POS (Points of Sale)
BR-02	Multiple users need to be able to use the application at the same time with individual login
BR-03	The user interface must be clear, so the application is easy to use
BR-04	The application must be compatible to most common mobile devices & browsers
BR-05	The application must be available in restaurant's opening hours
BR-06	The application must have fast response time
BR-07	The menu content must be easily administered
BR-08	The application shall be reliable and store order information
BR-09	The application shall be easily ductile and maintainable

1.5. Business Risks

Identified business risks of the implementation of WaitrApp are:

- The application is not ready for the grand reopening
  - Project plan and timeline must be followed frequently

- The kitchen personnel cannot handle more orders at once
  - Possibility to recruit another line cook to the kichen after the application is implemented

- Change resistance of employees to use the application
  - Information of the application and its benefits communicated throughout the organization

- Training of the personnel will fail
  - Training has simulation of the application
  - Assigned person has the responsibility to make sure that whole personnel are trained
  - Support person for the grand opening

2. Vision of the Solution

The order management application WaitrApp will bring significant benefits to the Wendy's Vegburger restaurant by streamlining the order management and bringing business benefits.

2.1. Vision Statement

The WaitrApp will revolute the order management of Wendy's Vegburger restaurant. The WaitrApp application will simplify and accelerate the process of customer service. The application will provide support for the whole ordering process from order taking, communicating orders to kitchen, notifying waiters of ready orders and the payment process. The application will be a master source of restaurant menu and it will show available dishes as well as a live status of all served and open orders for the restaurant. The new solution will be superior to the current manual pen and paper method.

2.2. Major Features

Feature ID	Feature name	Description	Priority
MF-01	Digital order entry	Waiters use their digital devices to enter customer orders into the WaitrApp instead of a pen and paper. Digitalization of orders allows faster transfer of order communication.	Must
MF-02	Order modification	Digitalization of orders allows easier modifications of orders is necessary later	Would
MF-03	Dish modification notes for kitchen	Modifications to menu items (i.e. allergies and special diets) can be managed easily.	Would
MF-04	Order status management	Waiters and chefs get the current status of all orders from the WaitrApp. This will clear the communication related to orders. Traffic between the dining hall and kitchen is reduced.	Should
MF-05	Digital Menu	Digitalization of the menu comes with a lot of advantages. Menu can be easily modified and updated when necessary. Multiple language versions are easier to produce. Menu can include pictures or even videos / animations. It can also contain more information than a traditional menu, without being inconvenient.	Would
MF-06	Integration to POS system	WaitrApp will be integrated into the restaurants existing POS (point of sale) system. Orders entered to WaitrApp are automatically input into the POS system.	Must
MF-07	Integration to kitchen order display system	Integration to kitchen order display system will display orders in real-time and enable same information between waiters, line cooks and chefs at the same time.	Must
MF-08	Table map	Table map of the WaitrApp will allow multiple things: 1. Delegating work of waitresses can be easily done using the intuitive UI 2. Waiters can check the status of tables easily (has a table ordered or what is the status of orders)	Should
MF-09	Confirm order	WaitrApp will ask waiter to confirm the order before order status change	Should
MF-10	Order handling	WaitrApp will allow multiple orders open at the same time and will achieve old orders	Must

2.3. Assumptions and Dependencies

Assumptions:

The restaurant's current POS system has an important role in this project, which is a system provided by a third party. It is essential that WaitrApp can be integrated into the existing POS system. It is assumed that integration between these two systems will be successful.

WaitrApp is used on a handheld device by the waiters. It is assumed that the restaurant will acquire and setup these handheld devices.

Customer and employee satisfaction surveys will be used to measure the success and impact of WaitrApp. The restaurant needs to conduct all the necessary surveys before the WaitrApp system is implemented. This way, survey results can be used to measure the success of the project.

The battery power and internet connection of the WaitrApp are assumed to be adequate.

Dependencies:

It is required that the personnel of the restaurant remain involved in the project. The personnel play an essential role in defining the requirements.

End users are needed for a testing of the system.

Menu of the restaurant is updated.

3. Scope and Limitations

With the time and resources which Wendy's Vegburger has budgeted for renewing their order management process, all the envisioned capabilities of WaitrApp cannot be delivered at once. In the sections that follow, the scope of this project will be defined in terms of major features which will be implemented and those which will not.

The fundamental objective of this development cycle is to deliver those features which will meet the customer's recent needs to release the application before the grand reopening of the restaurant.

3.1. Scope of Initial Release

The scope of the initial development cycle is characterized by the functionality list below. A detailed Software Requirements Specification (SRS) will be developed to capture the specific requirements for this project later.

The major features that will be implemented in the WaitrApp application in the initial release are:

1) Create, view, update and delete a menu

2) Create, view, update, modify and delete an order

3) Order history

4) Table map

5) Integration to POS

6) Authentication and user roles

3.2. Scope of Subsequent Releases

The second and final release will contain the following features:

1) Integration to kitchen display system

2) Order status management

3) Menu status (available and unavailable dishes)

4) Table reservation

5) Notification (when the food is ready and / or when there are new orders coming).

3.3. Limitations and Exclusions

This section lists desirable features that are outside of the scope of this project. The features might be available in the future releases.

LI-1: This application can be used only for restaurant Wendy's Vegburger. Later, the application is expected to be used for other restaurants in the same restaurant chain.

LI-2: This application will not contain the following modules: payroll, shift planning, time registration, report, and night audit.

LI-3: This application will be optimized to use on touchscreen devices such as, mobile pads and smartphones.

4. Business Context

A stakeholder analysis and interviews were conducted along with the initial meetings with Wendy's Vegburger personnel. The business context information for the development was collected based on these meetings.

4.1. Stakeholder Profiles

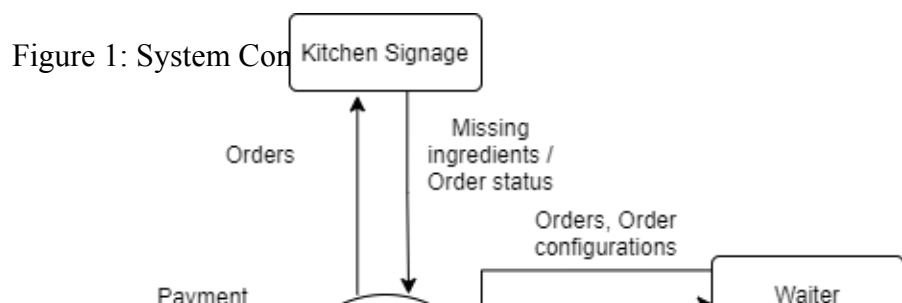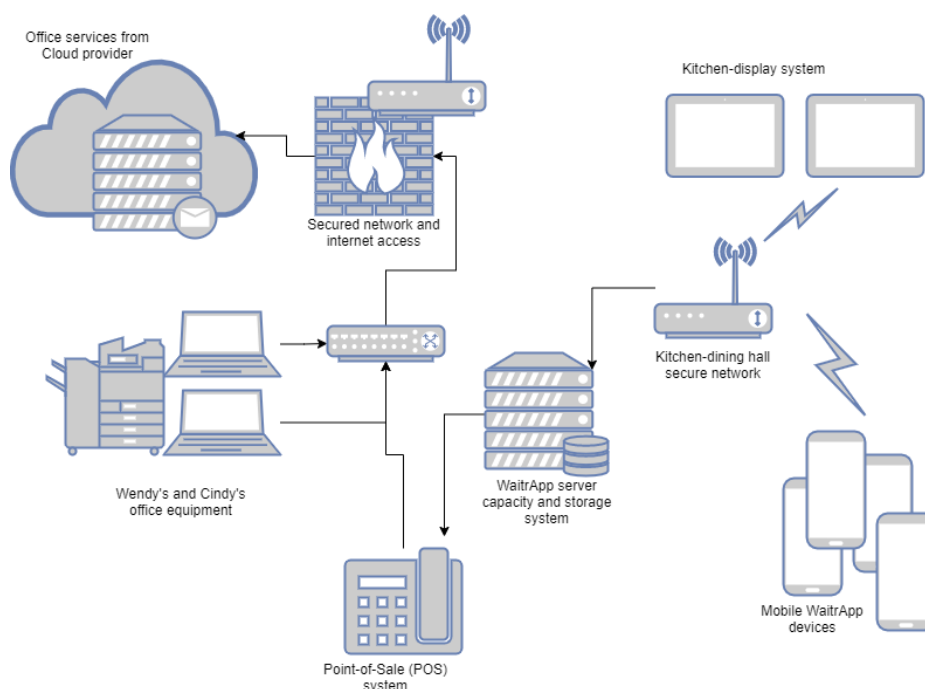| Stakeholder	Major Value	Attitudes	Major Interests	Constraints
Wendy Weston, the owner of Wendy's Vegburger	Increased revenue, decreased costs, satisfied employees, ultimately more and happier customers	Eager to grow and improve the business. Open for new ideas and opportunities	Easy to learn and use, seamless process from order to cash out	Must stay in budget
Waiters of Wendy's Vegburger	Less time spent on writing orders, less time spent on delivering orders to kitchen, online status of orders from kitchen	See the application as means to release time for better customer service, less time spent with line cooks	Easy to use user interface, reliability	Must have a device available for all waiters and some spare ones for any malfunctions and extra staff for holiday season.
Line cooks of Wendy's Vegburger	Less debate on what the order notes say, digital orders shown on kitchen display, possibility to limit menu when ingredients run out	Not really interested in the new tooling and process but if it can help avoiding discussion with waiters during the busy evening, they still take any improvement willingly	Realtime updates of orders and ingredient limitations to ensure less timely negotiation time on orders and or clarifications with dining hall crew.	Integration to kitchen display is mandatory to help with the order management in kitchen side
Cindy Weston, Head Chef of Wendy's Vegburger	Better communication with line cooks and waiters	Not always sure of her sister's decisions, struggles on communication between waiters and line cooks, loves good food	Accurate orders delivered by kitchen line cooks, limit the time that line cooks need to spend with figuring out the orders	Full view browser version of the application would be necessary to better manage the menu. Mobile UI is cumbersome for bigger data entries or menu overhauls for seasonal menus.

4.2. Project Priorities

Dimension	Driver (state objective)	Constraint (state limits)	Degree of Freedom (state allowable range)
Schedule	Release 1.0 to be available by 1 month before grand reopening, release 2 (final version) grand reopening		Early delivery optional
Features	Must have features needed		Chef's full browser UI can be delivered after the grand reopening but latest before Christmas season starts on 6.12.2021
Quality			90-95% of user acceptance tests must pass for release 1.0, 95-98% for release 2.0
Cost		Budget overrun not acceptable without executive review	

4.3. Operating Environment

The Wendy's Vegburger is a restaurant which has a dining hall and a kitchen. The WaitrApp will be used inside the premises by restaurant's personnel to manage customer orders. The System Context Diagram of the WaitrApp is shown in figure 1 and the Infrastructure and systems overview in figure 2.

- Wendy's Vegburger personnel using the solution will be all working from the restaurant premises

- Wendy's Vegburger personnel will use the solution with the equipment purchased for the purpose

- Endpoint equipment is connected to the server environment via the dedicated wireless network installed into the restaurant. Additionally, the wireless network is restricted to only the specified equipment utilizing network access control

- Each employee has their own user identifier and password to login to the application

Figure 1: System Con Kitchen Signage

Orders

Missing ingredients / Order status

Orders, Order configurations

Payment

Waiter

Vision and Scope Approval 13.10.2021

The undersigned acknowledge they have reviewed the **WaitrApp Vision and Scope** and agree that it meets the set expectations.

Signature:		Date:	13.10.2021
Print Name:			
Title:	Quite Senior Designer		
Role:	Provider, Group W Designer		

Signature:		Date:	13.10.2021
Print Name:	Wendy Weston		
Title:	CEO		
Role:	Sponsor		

Signature:		Date:	08.10.2021
Print Name:			
Title:	Almost a Developer		
Role:	Provider, Group W Developer		

Appendix A: References

The following table summarizes the documents relevant for the project.

Document Name and Version	Description	Location
WaitrApp Requirements Management Plan v.2.0	*Requirements Management Plan for WaitrApp solution*	*Project site*
WaitrApp Software Requirements Specification v.1.0	*Software Requirements Specification of WaitrApp solution*	*Project site*
WaitrApp Use Case Document v.1.0	*Use Case Document of WaitrApp solution*	*Project site*
WaitrApp Sustainability Analysis of Requirements Specification v.1.0	*Sustainability Analysis of Requirements Specification on WaitrApp solution requirements specification*	*Project site*