Software Requirements Specification

for

Beau's BBQ

Version 1.1 approved

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1. Introduction

1.1 Purpose

The objective of Beau's BBQ is to reach and serve more clients in Fort Myers. Therefore, Beau's BBQ is in the process to obtain a new permanent franchise in Fort Myers. One of the issues with getting a new franchise is the organization and productivity of this new franchise. In addition to reaching more clients with a new franchise, another factor that helps to reach more clients is customer service. By having great employees that come to work and work diligently, client satisfaction will increase thus reaching more clients. Therefore, Beau's BBQ needs a system that will ultimately serve customers efficiently while also monitoring the employees.

1.2 Scope

Product Names:

- Ordering System
- Employee Counter System (ECS) or Employee Tracker
- Host Management System (HMS) or Host Monitor System

1.3 Product Overview

1.3.1 Product Perspective

Context Diagram level 1 of New Beau's BBQ System:
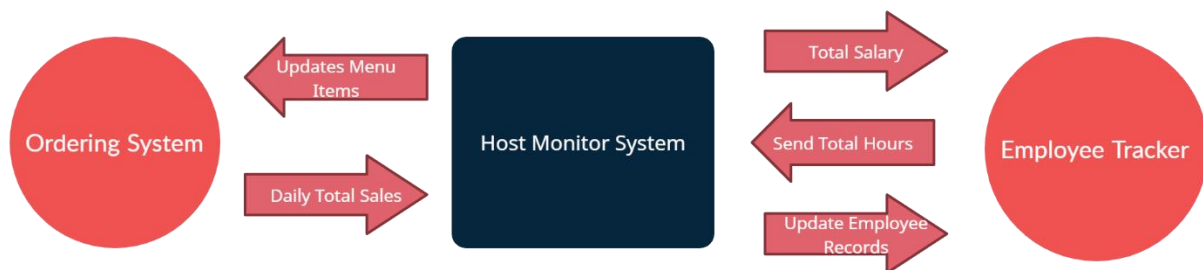
This Context Diagram shows the relationship between the three systems.

- The ordering system will be sending the Daily Total Sales to the HMS so it can be saved up in the cloud and the owner can see it. In addition, the owner will add and remove items then these will be updated in the system by the HMS and then updated I the Ordering System.
- The employee tracker will send the total hours of each employee to the HMS so their salary can be calculated. After that Salary can be viewed at the employee tracker as well. In addition, when the owner adds, remove, or update an employee record in the HMS it will automatically update the Employee Counter System

Level 2 Context Diagram with interaction of the users:
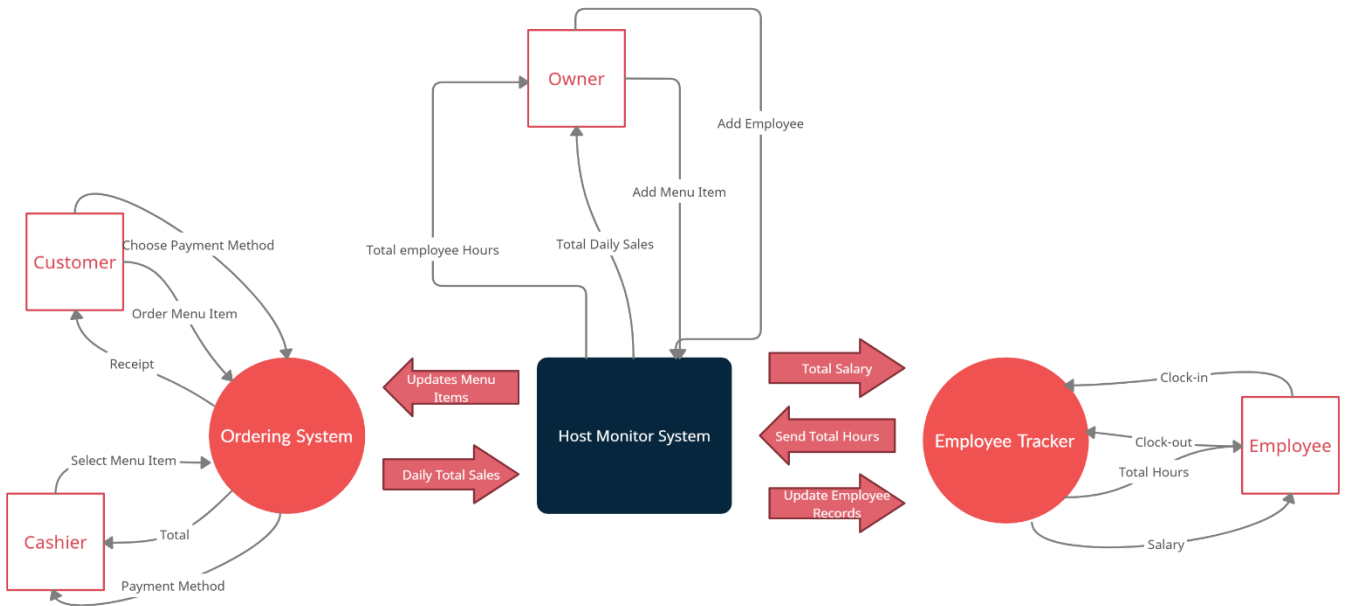
Constraints:

⚠	BBQ-9 Serve and safe certificate	BUSINESS ANALYSIS
⚠	BBQ-10 Customers are not always right	BUSINESS ANALYSIS
⚠	BBQ-11 No eating in front of customers	BUSINESS ANALYSIS
⚠	BBQ-12 Everybody needs the Safety Card	BUSINESS ANALYSIS
⚠	BBQ-13 Be nice to the customer	BUSINESS ANALYSIS
⚠	BBQ-22 Not Waterproof - Hardware Limitation	
⚠	BBQ-24 18 work hours limit - Software Limitation	
⚠	BBQ-21 Employees will not have access to the Host Management System - Software Limitation	
⚠	BBQ-25 Password to Host Management System cannot be shorter than 9 characters - Security	
⚠	BBQ-20 No ordering of unlisted menu items - Software Limitation	
⚠	BBQ-26 Password to HMS must to include: capital letter, number, and special character - Security	
⚠	BBQ-27 ID necessary to clock-in and clock-out at work	
⚠	BBQ-23 No customization by customer - Software Limitation	

1.3.2 Product Function

- The system shall be able to accept or cancel orders from customers

- The system shall track and count employees working hours

- The system shall deliver the result of sales and total worked hours of each employee to the owner by the end of the day

- The system shall modify the menu data and the employee data

1.3.3 User characteristics

- Customers Characteristics

  - Hungry

  - Ordering

  - Diversity of educational level

  - Different experience

  - Possible mental disabilities

  - Possible physical disabilities

  - Promoting

  - Main income

- Users Characteristics

  - Technical expertise

  - Verbally interact with the system

  - Promoting

  - College-level education

  - Certifications

  - More than one year of experience in the hospitality industry

  - Experience with ordering software

  - Experienced in payment transactions

  - Be able to serve food and beverages

  - Good customer service

- Owner Characteristics

  - Interacts with the system

  - Knowledge in business managements

  - Modify the systems

  - College-level education

  - 3-years of experience in hospitality

  - Culinary skills

  - Promoting

  - Good customer service skills

  - Budgeting

  - In charge of networking and negotiations

- Software Engineer Characteristics

  - Management of the system

  - Giving instruction manual and guidelines of the system to the other stakeholders

  - Designing the system

  - Testing the system

  - College-level education

  - Experienced in software developing

  - Experienced in business analysis

  - High-level of technical expertise

1.3.4 Limitations

Key	Summary	Description	Labels
BBQ-44	When the owner enters the key for Host Management System, the system shall check the key if it correct or incorrect in less than a second	The owner enter a unique code and if correct go to the next page if not display incorrect key	Functional, Limitation
BBQ-27	ID necessary to clock-in and clock-out at work	Employees need an ID in order to clock in and clock out at work.	Limitation
BBQ-26	Password to HMS must to include: capital letter, number, and special character - Security	The password for HMS has to include capital letter, special character, and numbers	Limitation
BBQ-25	Password to Host Management System cannot be shorter than 9 characters - Security	Password for the HM has to be longer than 9 characters.	Limitation
BBQ-23	No customization by customer - Software Limitation	Customers can not order a customized menu item.	Limitation
BBQ-22	Not Waterproof - Hardware Limitation	The system hardware will not be waterproof. If contact with water, the system will shut down.	Limitation
BBQ-21	Employees will not have access to the Host Management System - Software Limitation	Only the owner and the software developer will have access to the HMS. Employees will not be able to change the menu.	Limitation
BBQ-20	No ordering of unlisted menu items - Software Limitation	The customer cannot order something that is not on the menu	Limitation

1.4 Definitions

- "Barking good BBQ"

2. References

- Interview by Tyler
- Menu — Barkin' Good BBQ!
- Roupik Smoke Shop - Glendale, CA
- Beau's BBQ
- https://www.instagram.com/beausbbqfl/
- https://www.fdacs.gov/content/download/67688/file/MOBILE-FOOD-PERMIT-REQUIREMENTS.PDF

3. Specific Requirements

User Stories:

BBQ-15 As a Software Engineer, I want to be able to do maintenance of the system so that I can keep the syst... TO DO

BBQ-16 As an owner of Beau's BBQ, I want to be able to monitor the system so that I can pay the employees. TO DO

BBQ-18 As a User, I want to be able to interact with the system efficiently so that I can help more customers. TO DO

BBQ-17 As a customer, I want to be able to order anything I want so that I can eat. TO DO

BBQ-19 As an owner of Beau's BBQ, I want to be able to manage the system so that I can add or delete emplo... TO DO

BBQ-38 As an employee, I want to clock-in and clock-out of the system so I can get my hours in. TO DO

Set of Requirements:

BBQ-28 When a the cashier press a menu item button, the system shall output the price of that menu item within 2 seconds of pressing the button. TO DO

BBQ-29 When there cashier press a menu item that is no longer on stock, the system shall display "out of stock" on the display within 2 seconds of pressing the button. TO DO

BBQ-30 When the total is ready to be displayed the cashier press "Ready" button and the system shall tax the total and display the overall total without being negative. TO DO

BBQ-31 When the owner adds a new employee, the system shall display a page to enter necessary information in string or integer. TO DO

BBQ-32 When the owner adds a new menu item, the system shall display open boxes to type the menu item name as string , the price as string, and type of menu item. TO DO

BBQ-33 When the owner deletes a menu item, the system shall display all the menu items and the owner shall drag to the trash bin the menu item. TO DO

BBQ-34 When the owner wants to update a menu item, the system shall display all the menu item. The owner shall right-click on the designated menu item and edit the menu item a... TO DO

BBQ-35 When the software developer adds new features to the system, the system shall ask for a authorization key that only the owner has. TO DO

BBQ-36 When the employees clock-in, the system shall display a counter that counts up each minutes and add one after 60 minutes and resets the minute counter. TO DO

BBQ-37 When the employees clock-out, the system shall display a button to stop the counter within 2 seconds. TO DO

BBQ-44 When the owner enters the key for Host Management System, the system shall check the key if it correct or incorrect in less than a second TO DO

BBQ-45 When an employee enter login, the system shall check the ID if it is register in the files already TO DO

BBQ-46 The system shall be able to add more than one side per meal. TO DO

BBQ-47 The system shall be able to add more than one beverage per meal. TO DO

BBQ-48 The system shall be able to add more than one meal per order. TO DO

BBQ-49 When the customer is done ordering, the system shall display the customers order on monitor TO DO

BBQ-50 When the customer is done ordering, the system shall display the customer total in less then 5 sec. TO DO

BBQ-51 When the order is done, the customer shall choose payment method TO DO

BBQ-52 When the owner want to check the key, the system shall have the eye icon to display the key they enter. TO DO

BBQ-53 When the owner is in the HMS, the system shall have an icon to go back to the home page. TO DO

BBQ-54 The system shall deliver all the total sales at the end of a workday by 10 pm. TO DO

BBQ-55 The system shall deliver all the total hours worked by each employee at the end of the day by 10 pm. TO DO

Use Cases:

ID and Name:	**UC-1 Order a Meal**		
Created By:	Ragy Costa de jesus	Date Created:	03/05/2023
Primary Actor:	Customer	Secondary Actors:	Cashier
Description:	The customer indirectly orders a meal at the front window. The customer observes the menu and then tells the cashier to order their desired menu item.		
Trigger:	A customer indicates that they want to order a meal.		
Preconditions:	PRE-1. The customer has the desire to order something on the menu PRE-2. The customer must know what they want to order PRE-3. The customer must have some sort of monetary asset		
Postconditions:	POST-1. Meal order is stored in Ordering System with a status of "Preparing". POST-2. Inventory of available food items is updated. POST-3. Choose the method to pay the desired meal.		
Normal Flow:	**1.0 Order a Single Meal** 1. Customers view the menu on the food truck 2. Customers order a meal on the menu 3. The cashier adds the menu to the cart 4. Ordering System displays ordered menu items, individual prices, and total price, including taxes and delivery charge. 5. Cashier either confirms meal order (continue normal flow) or requests to modify meal order (return to step 2). 6. Customer chooses the payment method. 7. The customer pays the meal 8. The ordering system waits till the payment method has been approved. 9. The ordering system send the order to the preparing list		
Alternative Flows:	**1.1 Order multiple identical meals** 1. The customer orders the desired meal twice or more. 2. The system displays the meal with a counter in front to indicate quantity. 3. Return to step 4 of normal flow. **1.2 Order multiple meals** 1. Customer asks to order another meal. 2. Return to step 1 of normal flow.		

ID and Name:	**UC-9** Close Daily Sales		
Created By:	Ragy Costa de jesus	Date Created:	3/5/2022
Primary Actor:	Host Monitor System	Secondary Actors:	Ordering System, Cashier
Description:	Whenever a cashier closes the sales at the end of the day. The Ordering System send the total amount of sales to the Host Monitor System.		
Trigger:	When the cashier closes the sales.		
Preconditions:	PRE-1. The Ordering System must start. PRE-2. Sales must be made during the day. PRE-3. Cashier must close the register and the system.		
Postconditions:	POST-1. Send the summary from the Ordering System to the Host Monitor System POST-2. Display the summary in the HMS.		
Normal Flow:	**9.0 Closes a sale** 1. The system starts at the beginning of the day. 2. Made sales during the day. 3. The cashier closes the sales at the end of the day. 4. The Ordering System send the summary of total sales to the HMS. 5. The HMS displays the summary to the owner.		
Alternative Flows:	None		

ID and Name:	**UC-12 Create Menu**		
Created By:	Ragy Costa de jesus	Date Created:	3/5/2022
Primary Actors:	Host Monitor System	Secondary Actors:	Owner
Description:	The owner can create new items in the system database and display in menu item.		
Trigger:	The owner must enter a password to access create, modify, and delete item on the menu database.		
Pre-Condition:	PRE-1. The owner must enter a password. PRE-2. The password must be accepted otherwise try again.		
Post-Condition:	POST-1. The owner can create a new item on the menu list. POST-2. The owner can modify the item and the price. POST-3. The owner can delete the item. POST-4. The owner can make specials.		
Normal Flow:	**12.0 Create one menu item** 1. The owner enter the correct password in the HMS. 2. The owner press the create menu item button. 3. The owner enter the name and price of the desired item. 4. The owner choose in which category the item represents. 5. The owner press create.		
Alternative Flow:	**12.1 Create the same item** 1. Return to step 1 from Normal Flow. 2. The system identified this item has already been created. 3. The system display an error. **12.2 Creating different menu items** 1. Return to step 1 from Normal Flow. 2. The system has an addition button to add another menu item. 4. Return to step 3 from Normal flow.		

Use Case Diagram:

Beau's BBQ
Ragy Costa de jesus | March 5, 2022
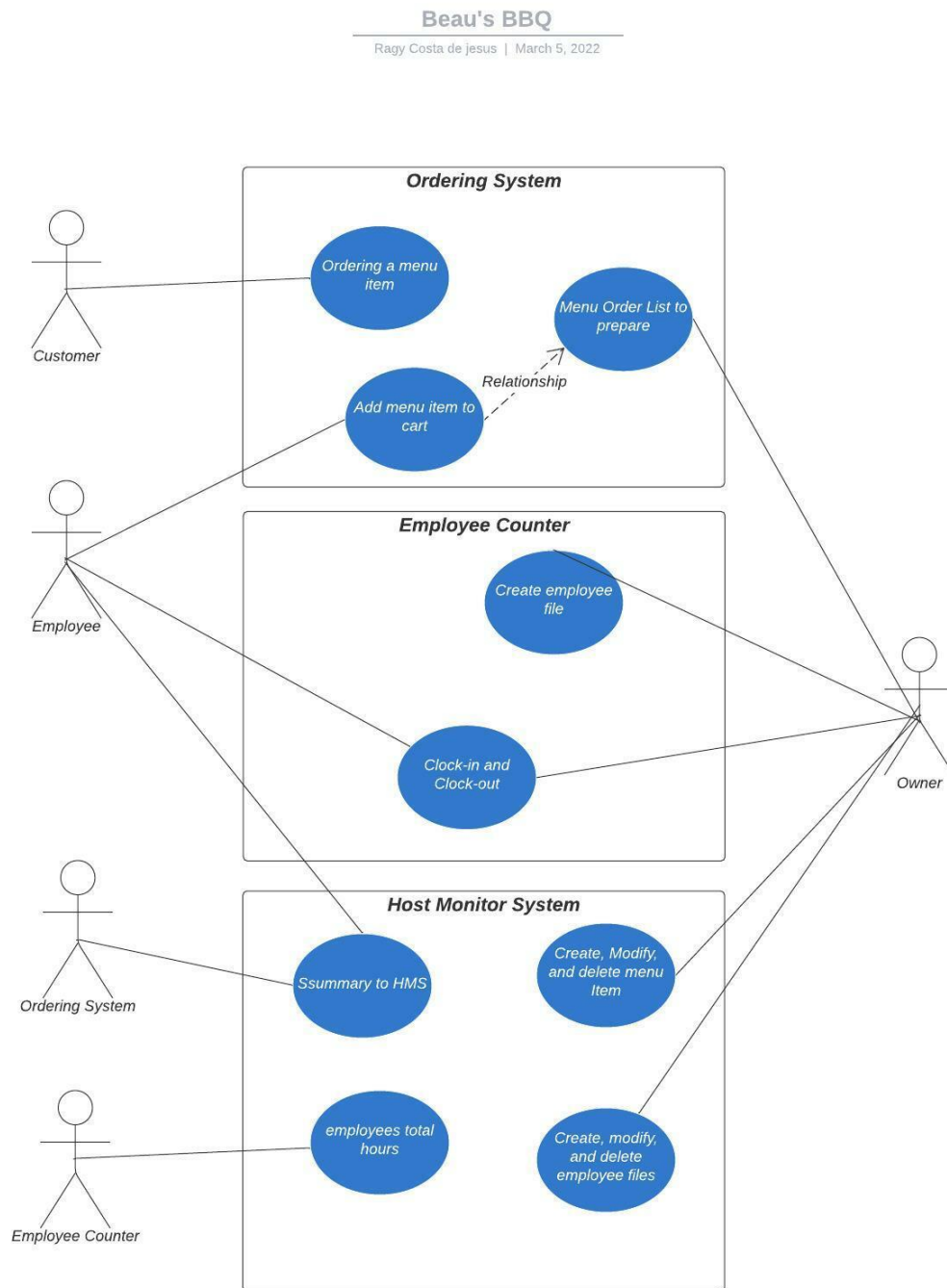
4. Verification

Key	Summary	Verification Approach
BBQ-55	The system shall deliver all the total hours worked by each employee at the end of the day by 10 pm.	Analysis
BBQ-54	The system shall deliver all the total sales at the end of a workday by 10 pm.	Analysis
BBQ-53	When the owner is in the HMS, the system shall have an icon to go back to the home page.	Demonstration
BBQ-52	When the owner want to check the key, the system shall have the eye icon to display the key they enter.	Inspection
BBQ-51	When the order is done, the customer shall choose payment method	Demonstration
BBQ-50	When the customer is done ordering, the system shall display the customer total in less then 5 sec.	Test
BBQ-49	When the customer is done ordering, the system shall display the customers order on monitor	Test
BBQ-48	The system shall be able to add more than one meal per order.	Demonstration
BBQ-47	The system shall be able to add more than one beverage per meal.	Demonstration
BBQ-46	The system shall be able to add more than one side per meal.	Demonstration
BBQ-45	When an employee enter login, the system shall check the ID if it is register in the files already	Inspection

BBQ-44	When the owner enters the key for Host Management System, the system shall check the key if it correct or incorrect in less than a second	Inspection
BBQ-37	When the employees clock-out, the system shall display a button to stop the counter within 2 seconds.	Analysis
BBQ-36	When the employees clock-in, the system shall display a counter that counts up each minutes and add one after 60 minutes and resets the minute counter.	Analysis
BBQ-35	When the software developer adds new features to the system, the system shall ask for a authorization key that only the owner has.	Inspection
BBQ-34	When the owner wants to update a menu item, the system shall display all the menu item. The owner shall right-click on the designated menu item and edit the menu item and click apply to update the system.	Test
BBQ-33	When the owner deletes a menu item, the system shall display all the menu items and the owner shall drag to the trash bin the menu item.	Demonstration
BBQ-32	When the owner adds a new menu item, the system shall display open boxes to type the menu item name as string , the price as string, and type of menu item.	Analysis
BBQ-31	When the owner adds a new employee, the system shall display a page to enter necessary information in string or integer.	Demonstration
BBQ-30	When the total is ready to be displayed the cashier press "Ready" button and the system shall tax the total and display the overall total without being negative.	Analysis
BBQ-29	When there cashier press a menu item that is no longer on stock, the system shall display "out of stock" on the display within 2 seconds of pressing the button.	Demonstration
BBQ-28	When a the cashier press a menu item button, the system shall output the price of that menu item within 2 seconds of pressing the button.	Demonstration

5. Appendices

5.1 Assumptions and Dependencies

- The system will be able to calculate the total sales made daily

- The system will be able to calculate the total hours worked of each employee

- The system will be able to count the minutes of each employee

- The system will be able to use a payment method

- The system will be able to order each purchased chronologically

- The system will be able to work even if the electricity is out

- The system will be able to modify the menu

- The system will have a cloud to store all the data

- The employee knows how to operate the system

- There will be employees scamming the hours

- There will be wasted food

5.2 Acronyms and abbreviations

OpsCon – Operational Concept

Key   – Series of Numbers

USB   – Universal Serial Bus

SRS   – Software Requirement Specification

OS   – Ordering System

HMS   – Host Management System

ECS   – Employee Counter System

UC   – Use case