life happens, coffee helps!

CORNERCUP

EST. 2023

POINT OF SALES REQUIREMENTS

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Version: 2

October 23, 2023

INTERVIEW NOTES AND TRANSCRIPT

List of interview questions for the CORNERCUP Point of Sale (POS) project, arranged in a hierarchy from general to specific, encompassing both broad concepts and detailed aspects:

Can you provide an overview of Cornercup's business goals and objectives, and how the POS system fits into those goals?

Interviewee:
Of course ,the number 1 (one) business goal is to have a sale, and I think makatabang ang POS system para convenient ang ahh pag-process sa money at ang out ug in sa money sa customers, that's all.

What are the main challenges or pain points that the current POS system or processes are facing?

Interviewee:
Uhhm, usually ang ginaface nga challenges kay dili accurate ang total nga total uhmm ibayad sa customer and change, sometimes mamali-mali and kulang-kulang ug sobra-sobra.

What are the key features and functionalities you expect from the new Cornercup POS system?

Interviewee:

Log-in, Log-out, YES
Inventory List, YES
Product Total Sales, YES
Sales History, YES
Transaction and Payment History, YES

Interviewer:
User settings, kailangan pa ba ta mag user settings or log-in, log-out nalang siya?

Interviewee:
Uhm I think mas nindot nga naay user settings para mas macustomize namo ang POS system.

How do you envision the new POS system enhancing the customer experience and streamlining operations?

Interviewee:
Uhm I'm not really specific sa design, sa presentation as long as convenient siya gamiton and accurate siya muhatag ug results. That's all.

Can you provide details about the hardware setup for the POS system, including the type of devices (registers, tablets, etc.) and any specific peripherals (barcode scanners, receipt printers) required?

Interviewee:

As much as possible, compatible siya sa tanan, android, IOS, tablet, laptops, and of course magamit siya bisag offline kay di man permi naay internet data sa mga places nga baligyaan namo especially nga coffee shop ra mi so nagapop-up store lang giyud mi.

Interviewer:
Pwede mas specific? Pwede isa lang?

Interviewee:
Tablet, I must say. Kay mas dako man gud ang tablet and mas clear siya gamiton.

What level of customization or branding is needed for the user interface of the POS system, and are there any specific design preferences?

Interviewee:
Uhm siguro appealing sa mata, dili siya super colorful siguro neutral colors. Syempre bagay sa among branding para mas much better, and basta lang accurate siya. KAy syempre pag daghan ug customers ay mga orders na i-take dili na biya na makaya ug mano-mano ug calculate, kung dili accurate ang among kuan, magansi mi.

Can you describe the specific types of coffee products and waffle pops offered by Cornercup, including any variations or customizations?

Interviewee:
Ako nalang ning pangayuon sa imoa.

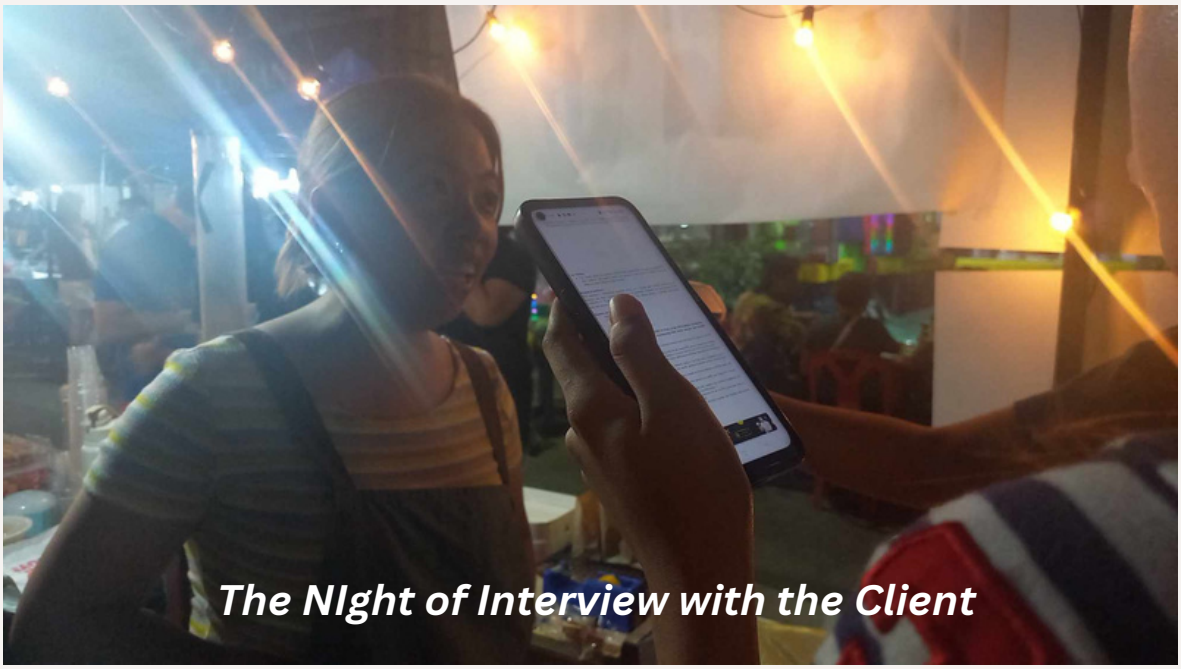
What payment methods and integrations with other systems (e.g. inventory management, and customer loyalty) are crucial for the success of the POS system?

Interviewee:
Uhm syempre karon, daghan namang mode of payment systems like GCash , Online Transaction, ug kanang physical money jud nga ihatag.And kuan diay, if online transactions kay makahatag mog receipts, ay sakto ba na, diba sa POS system naa man na silay, kanang pag kuan online transaction naa silay receipt na duha kabuok mugawas, same lang bitaw sa mga mall ug unsa ba.

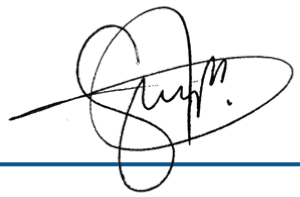
Interviewer:
Murag invoice?

Interviewee:
Oo, mura siyag invoice nga receipt nga naay kopya ang customer ug ikaw para incase nga magreklamo sila naa kay transparency nga maipakita.

That's all. Thank you, Ma'am!



The NIght of Interview with the Client

APPROVAL HISTORY			
Reviewer	Version Reviewed	Signature	Date
Joanna Mae Payusan	Version 1		October 7, 2023
Justine Payusan	Version 1		October 7, 2023

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1 INTRODUCTION

This document serves as a comprehensive blueprint for the development of a Point of Sale (POS) system tailored to the specific needs of Cornercup, a vibrant coffee shop. Through this document, we aim to define the scope, outline the requirements, and provide key insights derived from an illuminating interview with the stakeholders of Cornercup.

The primary objective is to enhance the operational efficiency and precision of sales and inventory management, all while delivering a superlative customer experience. It is a testament to the business goals, challenges, and expectations that will steer the development of a POS system meticulously aligned with Cornercup's unique vision and operational requisites.

REQ001.1 PRODUCT SCOPE

The CORNERCUP Point of Sale (POS) System is a software application designed to assist the owners of CORNERCUP in effectively managing their coffee shop's sales and inventory. The scope of this project encompasses the following essential functionalities:

- Log-in/Log-out: Authentication for manager and cashier users.
- Inventory List: Management of store products.
- Product Total Sales: Tracking sales and product performance.
- Sales History: Recording product purchases and transactions.
- Transaction and Payment History: Detailed record-keeping of transactions and payments.
- User Settings: Management of user accounts.

1 INTRODUCTION

REQ001.2 PRODUCT VALUE

The CORNERCUP POS System will deliver substantial value to the owners, Joanna Mae Payusan and Justine Payusan, by offering the following benefits:

- **Efficiency Enhancement: By automating various aspects of sales and inventory management, the system will optimize the store's operations, reducing manual work and errors.**
- **Sales Insights: The system will provide owners with valuable insights into product sales performance and overall sales trends, enabling data-driven decisions.**
- **User Management: The system's user settings feature will facilitate secure user management, ensuring that authorized personnel have access to the system.**

REQ001.3 INTENDED AUDIENCE

The primary audience for the CORNERCUP POS System is Joanna Mae Payusan and Justine Payusan, who are the owners of CORNERCUP. They will use the system in their roles as managers and cashiers responsible for overseeing and operating the POS system in the store.

REQ001.4 INTENDED USE

The system is intended to be used exclusively by the owners (Joanna Mae Payusan and Justine Payusan) for managing and monitoring the daily operations of the coffee shop's point-of-sale system.

1 INTRODUCTION

REQ001.5 GENERAL DESCRIPTION

The CORNERCUP POS System will be characterized by the following attributes:

- **Graphically Intuitive Interface: The application will provide an aesthetically pleasing and intuitively navigable graphical interface, enhancing usability for the owners.**
- **SQLite Database: Data storage will rely on an SQLite database to ensure data integrity and reliable storage for inventory, transactions, and payment records.**
- **Product Management: The system will empower the owners to manage product details efficiently, including adding, editing, and deleting products. Each product will be identified by a unique ID, and categories will be predefined and fixed.**
- **Transaction Management: The system will facilitate the input of customer transactions, record transaction details, and calculate transaction totals, including optional discounts, VAT, and change for customers.**
- **User Management: The user settings feature will enable the manager to modify passwords and manage cashier accounts, ensuring secure access to the system.**

2 FUNCTIONAL REQUIREMENTS

REQ002.1 LOG-IN/LOG-OUT

The application will require users to authenticate by entering their registered username and password. Both manager and cashier login credentials will be stored in the database.

REQ002.2 INVENTORY LIST

This feature will provide a comprehensive view of all store products, enabling the owner/manager to add, edit, and delete products. Additionally, it will support a search function for efficient product management.

REQ002.3 PRODUCT TOTAL SALES

This feature will display a summary of product sales, including product names, IDs, total quantities sold, and corresponding sales amounts. It will also offer insights into overall store sales trends.

REQ002.4 SALES HISTORY

The system will maintain a record of all products purchased in transactions, with details such as transaction ID, date, product ID, product name, price, quantity, and subtotal. A search feature will facilitate easy access to specific transaction information.

REQ002.5 TRANSACTION AND PAYMENT HISTORY

This feature will display transaction details, including transaction ID, date, cashier, payment ID, total cost, amount paid, and change given. Additionally, it will offer a search function to find transactions based on cashier username. A separate "Payment History" will provide insights into payment records.

REQ002.6 USER SETTINGS

This feature will enable the manager to modify their password and manage cashier login details. It ensures user account management for the manager.

3 EXTERNAL INTERFACE REQUIREMENTS

REQ003.1 USER INTERFACE REQUIREMENTS

An intuitive graphical user interface that facilitates seamless navigation and interaction with the system.

REQ003.2 HARDWARE INTERFACE REQUIREMENTS

Compatibility with standard hardware components, such as smartphones and tablets.

REQ003.3 SOFTWARE INTERFACE REQUIREMENTS

Utilization of various programming languages and technologies, including Python, Java, CSS, HTML, and JavaScript, to develop the application.

REQ003.4 COMMUNICATION INTERFACE REQUIREMENTS

Communication with the SQLite database for data storage and retrieval.

4 NON-FUNCTIONAL REQUIREMENTS

REQ004.1 SECURITY

Implement strong authentication methods, such as username and password, to control access to the web-based POS system.

REQ004.2 CAPACITY

- **The web-based POS application should support the storage of transaction data, including sales records, order details, customer information, and payment history, with the volume depending on daily transactions at CornerCup.**
- **Storage space is also required for menu items.**

REQ004.3 COMPATIBILITY

- **Web Browser: The software should be compatible with modern web browsers, such as Google Chrome, Mozilla Firefox, Microsoft Edge, or Safari.**
- **Internet Connection: A stable internet connection with a recommended minimum speed of 2 Mbps for smooth operation.**
- **Processor: The device running the web-based POS should have a processor capable of running modern web applications efficiently, but specific processor details are not required.**
- **RAM (Memory): A minimum of 2GB of RAM is recommended for optimal performance.**
- **Storage: The device should have sufficient local storage to run the web browser and cache data, but a specific storage capacity is not needed.**
- **Point of Sale Hardware: Using additional hardware components like a cash drawer and receipt printer, ensure that these are compatible with the device or network being used.**

4 NON-FUNCTIONAL REQUIREMENTS

REQ004.4 RELIABILITY

The system should consistently handle an average of 100 transactions per hour and operate at a maximum capacity of 200 transactions per hour during peak usage, ensuring 50% load capacity.

REQ004.5 SCALABILITY

The system should be able to support 200-300 transactions per day during peak hours, including sales, order processing, payment transactions, and other relevant operations.

REQ004.6 MAINTAINABILITY

To ensure the maintainability of the web-based POS system, we will adopt a Continuous Integration (CI) approach that allows us to deploy new features and bug fixes quickly and efficiently. Here's how we plan to implement CI in our development and deployment process:

- **Version Control: Utilize a version control system, such as Git, to manage the source code of the POS system. This enables tracking changes and collaboration among development team members.**
- **Code Review: Enforce a code review process where team members review each other's code. This process helps maintain code quality and ensures that best practices are followed. Code reviews help catch issues early in the development cycle.**
- **Continuous Monitoring: Implement monitoring and alerting systems to keep track of the application's performance and detect issues in real-time. This enables rapid response to any unexpected problems.**
- **Rollback Strategy: Develop a rollback strategy that allows us to quickly revert to a previous version in case a deployment introduces critical issues or errors.**
- **Documentation: Maintain comprehensive and up-to-date documentation for developers, system administrators, and end-users to ensure that everyone has access to the necessary information.**

4 NON-FUNCTIONAL REQUIREMENTS

REQ004.7 USABILITY

- The user interface should prioritize simplicity and clarity. Menus, buttons, and navigation elements should be logically organized and self-explanatory, requiring minimal training for new users.
- The design should be touch-friendly to accommodate the use of touchscreens by cafe staff.
- Product listings should include clear and concise descriptions, prices, and images for quick item identification.

REQ004.8 OTHER

Alerting and Errors. The system should include alerts and error notifications to proactively address issues, such as empty inputs or transaction errors.

5 DEFINITIONS AND ACRONYMS

POINT OF SALE (POS) SYSTEM	**A device that is used to process transactions by retail customers. A hardware and software that helps your business accept payments from customers and make sales in person.**
LOG-IN/LOG-OUT	**Authentication process for manager and cashier users to access the POS system.**
INVENTORY LIST	**Functionality for managing store products, including adding, editing, and deleting products.**
PRODUCT TOTAL SALE	**Feature that tracks and displays sales information, including product names, IDs, quantities sold, and sales amounts.**
PRODUCT TOTAL SALE	**Record-keeping of product purchases and transactions, including details such as transaction ID, date, product and information.**
TRANSACTION AND PAYMENT HISTORY	**Detailed record-keeping of transactions and payments, including transaction ID, date, cashier information, and payment details.**

5 DEFINITIONS AND ACRONYMS

USER SETTING	**Functionality for managing user accounts and modifying passwords within the POS system.**
SQLITE DATABASE	**A type of database used for data storage, ensuring data integrity and reliable storage for inventory, transactions, and payment records.**
CASCADING STYLE SHEETS (CSS)	**A stylesheet language used to describe the presentation of a document written in HTML or XML**
HYPERTEXT MARKUP LANGUAGE (HTML)	**A standardized system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages.**
JAVASCRIPT	**An object-oriented computer programming language commonly used to create interactive effects within web browsers.**
CONTINUOUS INTEGRATION (CI)	**A software development approach and practice that involves regularly integrating and testing code changes into a shared repository.**

6 REQUIREMENT REVIEW

The application will require users to authenticate by entering their registered username and password. Both manager and cashier login credentials will be stored in the database.

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2	Is the stated requirement technically achievable?	**Yes**
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SALES HISTORY

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REQ0002.5
TRANSACTION AND PAYMENT HISTORY

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REQ0002.6
USER SETTINGS

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16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ00003.1
USER INTERFACE REQUIREMENTS

An intuitive graphical user interface that facilitates seamless navigation and interaction with the system.

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16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ0003.2
HARDWARE INTERFACE REQUIREMENTS

Compatibility with standard hardware components, such as smartphones and tablets.

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15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	**Yes**
16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ0003.3
SOFTWARE INTERFACE REQUIREMENTS

Utilization of various programming languages and technologies, including Python, Java, CSS, HTML, and JavaScript, to develop the application.

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1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	**Yes**
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15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	**Yes**
16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ0003.4
COMMUNICATION INTERFACE REQUIREMENTS

Communication with the SQLite database for data storage and retrieval.

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	**Yes**
2	Is the stated requirement technically achievable?	**Yes**
3	Is the stated requirement complete, with no further clarification required?	**Yes**
4	Has it been verified that the stated requirement does not have a negative impact on other requirements and systems?	**Yes**
5	Is the stated requirement unique in that it does not duplicate other requirements?	**Yes**
6	Is the same terminology used for the same elements as in all other requirements?	**Yes**
7	Does the stated requirement have one and only one interpretation?	**Yes**
8	Is the language clear enough to leave no doubt about the intended descriptive or numeric value?	**Yes**
9	Does the stated requirement use commonly used nontechnical terminology and avoid technical terminology?	**Yes**
10	Does the stated requirement use standard words or phrases such as “shall” and “will” and avoid ambiguous words like friendly user, flexible, fault tolerant, state-of-the-art, simple, efficient, easy and minimum/maximum without precise quantification?	**Yes**
11	Can the stated requirement be verified by inspection, analysis, demonstration or test?	**Yes**
12	Has the stated requirement been assigned a unique identifier in order to follow its life through all frames of the project?	**Yes**
13	Does the stated requirement have only the essential capability, only the essential physical characteristics, only the essential quality and nothing beyond essential?	**Yes**
14	Is the stated requirement clear, easy to understand and states only what must be done?	**Yes**
15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	**Yes**
16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ0004.1
SECURITY

Implement strong authentication methods, such as username and password, to control access to the web-based POS system.

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	**Yes**
2	Is the stated requirement technically achievable?	**Yes**
3	Is the stated requirement complete, with no further clarification required?	**Yes**
4	Has it been verified that the stated requirement does not have a negative impact on other requirements and systems?	**Yes**
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11	Can the stated requirement be verified by inspection, analysis, demonstration or test?	**Yes**
12	Has the stated requirement been assigned a unique identifier in order to follow its life through all frames of the project?	**Yes**
13	Does the stated requirement have only the essential capability, only the essential physical characteristics, only the essential quality and nothing beyond essential?	**Yes**
14	Is the stated requirement clear, easy to understand and states only what must be done?	**Yes**
15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	**Yes**
16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ0004.2
CAPACITY

The web-based POS application should support the storage of transaction data, including sales records, order details, customer information, and payment history, with the volume depending on daily transactions at CornerCup. Storage space is also required for menu items.

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	**Yes**
2	Is the stated requirement technically achievable?	**Yes**
3	Is the stated requirement complete, with no further clarification required?	**Yes**
4	Has it been verified that the stated requirement does not have a negative impact on other requirements and systems?	**Yes**
5	Is the stated requirement unique in that it does not duplicate other requirements?	**Yes**
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9	Does the stated requirement use commonly used nontechnical terminology and avoid technical terminology?	**Yes**
10	Does the stated requirement use standard words or phrases such as “shall” and “will” and avoid ambiguous words like friendly user, flexible, fault tolerant, state-of-the-art, simple, efficient, easy and minimum/maximum without precise quantification?	**Yes**
11	Can the stated requirement be verified by inspection, analysis, demonstration or test?	**Yes**
12	Has the stated requirement been assigned a unique identifier in order to follow its life through all frames of the project?	**Yes**
13	Does the stated requirement have only the essential capability, only the essential physical characteristics, only the essential quality and nothing beyond essential?	**Yes**
14	Is the stated requirement clear, easy to understand and states only what must be done?	**Yes**
15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	**Yes**
16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ00004.3
COMPATIBILITY

- *Web Browser:* ***The software should be compatible with modern web browsers, such as Google Chrome, Mozilla Firefox, Microsoft Edge, or Safari.***
- *Internet Connection:* ***A stable internet connection with a recommended minimum speed of 2 Mbps for smooth operation.***
- *Processor:* ***The device running the web-based POS should have a processor capable of running modern web applications efficiently, but specific processor details are not required.***
- *RAM (Memory):* ***A minimum of 2GB of RAM is recommended for optimal performance.***
- *Storage:* ***The device should have sufficient local storage to run the web browser and cache data, but a specific storage capacity is not needed.***
- *Point of Sale Hardware:* ***Using additional hardware components like a cash drawer and receipt printer, ensure that these are compatible with the device or network being used.***

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	Yes
2	Is the stated requirement technically achievable?	Yes
3	Is the stated requirement complete, with no further clarification required?	Yes
4	Has it been verified that the stated requirement does not have a negative impact on other requirements and systems?	Yes
5	Is the stated requirement unique in that it does not duplicate other requirements?	Yes
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11	Can the stated requirement be verified by inspection, analysis, demonstration or test?	Yes
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13	Does the stated requirement have only the essential capability, only the essential physical characteristics, only the essential quality and nothing beyond essential?	Yes
14	Is the stated requirement clear, easy to understand and states only what must be done?	Yes
15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	Yes
16	Is the requirement traceable?	Yes

6 REQUIREMENT REVIEW

REQ0004.4
RELIABILITY

The system should consistently handle an average of 100 transactions per hour and operate at a maximum capacity of 200 transactions per hour during peak usage, ensuring 50% load capacity.

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	**Yes**
2	Is the stated requirement technically achievable?	**Yes**
3	Is the stated requirement complete, with no further clarification required?	**Yes**
4	Has it been verified that the stated requirement does not have a negative impact on other requirements and systems?	**Yes**
5	Is the stated requirement unique in that it does not duplicate other requirements?	**Yes**
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14	Is the stated requirement clear, easy to understand and states only what must be done?	**Yes**
15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	**Yes**
16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ0004.5
SCALABILITY

The system should be able to support 200-300 transactions per day during peak hours, including sales, order processing, payment transactions, and other relevant operations.

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	**Yes**
2	Is the stated requirement technically achievable?	**Yes**
3	Is the stated requirement complete, with no further clarification required?	**Yes**
4	Has it been verified that the stated requirement does not have a negative impact on other requirements and systems?	**Yes**
5	Is the stated requirement unique in that it does not duplicate other requirements?	**Yes**
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14	Is the stated requirement clear, easy to understand and states only what must be done?	**Yes**
15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	**Yes**
16	Is the requirement traceable?	**Yes**

6 REQUIREMENT REVIEW

REQ00004.6
MAINTAINABILITY

To ensure the maintainability of the web-based POS system, we will adopt a Continuous Integration (CI) approach that allows us to deploy new features and bug fixes quickly and efficiently. Here's how we plan to implement CI in our development and deployment process:

- *Version Control: Utilize a version control system, such as Git, to manage the source code of the POS system. This enables tracking changes and collaboration among development team members.*
- *Code Review: Enforce a code review process where team members review each other's code. This process helps maintain code quality and ensures that best practices are followed. Code reviews help catch issues early in the development cycle.*
- *Continuous Monitoring: Implement monitoring and alerting systems to keep track of the application's performance and detect issues in real-time. This enables rapid response to any unexpected problems.*
- *Rollback Strategy: Develop a rollback strategy that allows us to quickly revert to a previous version in case a deployment introduces critical issues or errors.*
- *Documentation: Maintain comprehensive and up-to-date documentation for developers, system administrators, and end-users to ensure that everyone has access to the necessary information.*

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	Yes
2	Is the stated requirement technically achievable?	Yes
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14	Is the stated requirement clear, easy to understand and states only what must be done?	Yes
15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	Yes
16	Is the requirement traceable?	Yes

6 REQUIREMENT REVIEW

REQ0004.8
USABILITY

- ***The user interface should prioritize simplicity and clarity. Menus, buttons, and navigation elements should be logically organized and self-explanatory, requiring minimal training for new users.***
- ***The design should be touch-friendly to accommodate the use of touchscreens by cafe staff.***
- ***Product listings should include clear and concise descriptions, prices, and images for quick item identification.***

	Question	Yes/No
1	Is the requirement detailed enough and adequate to develop an estimate and clear enough so the business knows what will be delivered?	Yes
2	Is the stated requirement technically achievable?	Yes
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15	Does the stated requirement document WHAT is required, not HOW the requirement should be met?	Yes
16	Is the requirement traceable?	Yes