Customer Relationship Management

Team 2:

MIS 360

5/31/2022

Dr. Grant

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Planning

Problem Statement

Broadway Café has been open since the 1950s and has decided to update its traditional services. The Broadway Café continues to function as it did in the 1950s, but with an increasing number of clients, the staff finds it difficult to keep up with the orders. Because there is no computer system, data is significantly more difficult to record and track; employees must handwrite orders and receipts, making it impossible to help consumers. Because we are a tiny coffee shop, this insufficiency is costing us money and effort. As a result, the Broadway Café is introducing a new and creative customer relationship management (CRM) system. Because of the significant rise in technology and innovation in modern times, businesses must always stay up to date with evolving technologies, the management team has proposed upgrading our existing services.

Implementing new and inventive technology within the café will improve the system for workers and management while also enhancing consumer involvement. The café will upgrade its infrastructure and add these cutting-edge growth kiosks. Kiosks are self-service kiosks with touch screens that are freestanding. Our goal is to succeed in bent consumers in a very informal manner by adopting this new approach within the café. The kiosks will need the establishment of an internet website that may be accessible to consumers within the café via the kiosks yet on their own devices. This new system is going to be ready to enhance existing customers' experiences as well as attract new customers to the café.

By increasing customer interaction, service, and skill, the new customer relationship management system will offer value to the Broadway Cafe. This may boost the cafe's sales and its value. Customers are going to be able to create new accounts with the Broadway Cafe so as to get rewards and free menu items as a part of this new system.

Project Scope

Project title: The Broadway Cafe- CRM	**Team:** 2
Project leader/manager: Insia	**Anticipated project start date:** April 25, 2022
Sponsor: Esther	**Date prepared:** May 15, 2022
Project risk level: Low	**Estimated completion date:** May 30, 2022

Team members:

- Mohammad Ganny
- Insia Haroon
- Shriyadita Malisetty
- Shreya Rawal
- Alexander Sereleas
- Vacha Thakkar
- Jawad Yousuf
- Melary Vasquez

Background: The cafe workers are unable to take orders in a timely manner. So, therefore, a new computer system needs to be implemented in order for a new order to be followed.

Scope description:

- Project budget increases
- Implement
    - Security
    - Safety
    - Technology
    - Staff training
    - Kiosk
- Prepare a budget plan

Deliverables:

The CRM system we're installing at the café is software that the management team and customers may access directly. Digital kiosks are being used as part of the CRM system. The kiosks can assist the café staff to reply to customers quickly using the information they submit on this self-service system.

Kiosks will be user-friendly, allowing people of all ages to easily move around the system, which includes a website. This new technology will allow the café to keep track of customer information and collect statistics via the kiosk. Customers will be able to sign up for a rewards account through this system, improving customer engagement and loyalty. Finally, the café's database and customer relationship management will be improved.

Stakeholders:

- Customers
- Cafe staff and Management
- Project manager
- Project sponsor

Systems Request

Customer Relationship Management

Project Sponsor: Melary Vasquez

Business Need:
An increase in the number of customers has resulted in an increase in the workload for employees with the café's current system. A new system should be created for the technological advancement of the café. Implementing this project will improve the café's customer service and reduce customer waiting times.

Business Value:

- Expected increase in customer satisfaction.
- Attract new customers into the café.
- Reduce labor costs.
- Increase in the number of annual sales (20-25%)

Business Requirements:
By using the kiosks customers should be able to search for food and beverages and complete their orders. The new CRM system should do the following:

- Record dates/times of follow-up customer requests.
- Provide customer assistance.
- Provide an easier way to track customer engagement.
- Record all transactions and client information.

Special Issues or Constraints:

- Software and hardware application.
- Budget and time constraints.

Assumptions

We assume that our new CRM system will greatly improve customer engagement and so result in an expansion of our customer base. Furthermore, we also assume that our new system will reduce customer wait times and increase customer satisfaction.

We also expect customers to review our new system and be able to provide their feedback as our system may have room for improvement.

Additionally, we expect our new marketing campaigns to reach a larger network of potential clients because they will be catered to our client's interests, as their information is drafted by our system and stored in our database. This will result in an increase in café visits and annual sales.

Feasibility Analysis

The Broadway Cafe first opened its doors in 1952. To compete with other local coffee shops, we should integrate technologies into our business in order to bring it into the twenty-first century. To improve business operations for staff and customers, the Broadway Café project team is implementing a new Customer Relationship Management (CRM) system. To implement a new CRM system, such as a website, a feasibility study must be conducted that takes into account all of the project's relevant factors, including technical, economic, and organizational considerations.

Implementing this new CRM system at the café offers numerous benefits, which are described below:

1. Providing excellent customer service - With an optimized interface and databases, clients may find what they are seeking fast and effortlessly.
2. Centralized information database - Kiosks will allow an organization to store large volumes of data in a single location, making it easily accessible and handy.
3. Improved Sales - CRM provides for the streamlining of sales by analyzing customer data, which aids in a better understanding of customers.
4. Automation - By automating the majority of the procedures of recording and updating data, you may save time and minimize the number of errors committed manually.

Technical Feasibility: Are we able to build it?

Our goal of establishing a CRM system is technically viable (as shown below). Because we employed a manual approach (the previous system), implementing this new system will be less dangerous. We reasoned that employing this technique would make it easier for people to become acquainted with our website and our kiosk. Users will be more inclined to provide feedback if they have faster access to our technical assistance, and we will be able to learn more about our consumers. Our internal staff will be educated on how to utilize the system from the perspective of the user, while our external team will be trained on how to automate and export data on our users, which will aid in the resolution of any challenges or issues.

Potential Hazards	Relevance to Business	The Risk Level
Knowledge of the Business functional areas	Users are completely at ease with it.	Low
Experience with Technology	Users are completely at ease with it.	Low
Size of the Project	Massive undertaking	Medium
Compatibility with the previous system	Insignificant compatibility	High

Economic Feasibility:

The Economic Feasibility study determines the financial costs and advantages of establishing a CRM. While hiring a team of developers and considering module expenses, we are attempting to keep expenditures within our budget. Implementing a new system is costly, thus the costs should be carefully weighed against the benefits to see whether they outweigh the costs. This study helps us decide whether or not to implement the system by assessing the project's cash flow and return on investment.

Name of developers	Description/Section	Costs
Front End	$20/hour	$20,000
Back End	$20/hour	$20,000
Sales Module	Management of Accounting and sales, and planning. Analytics	$20,000
Marketing Module	Analytics, client segmentation, company management	$15,000
Support Module	Agent console, customer statistics, instructions	$23,000

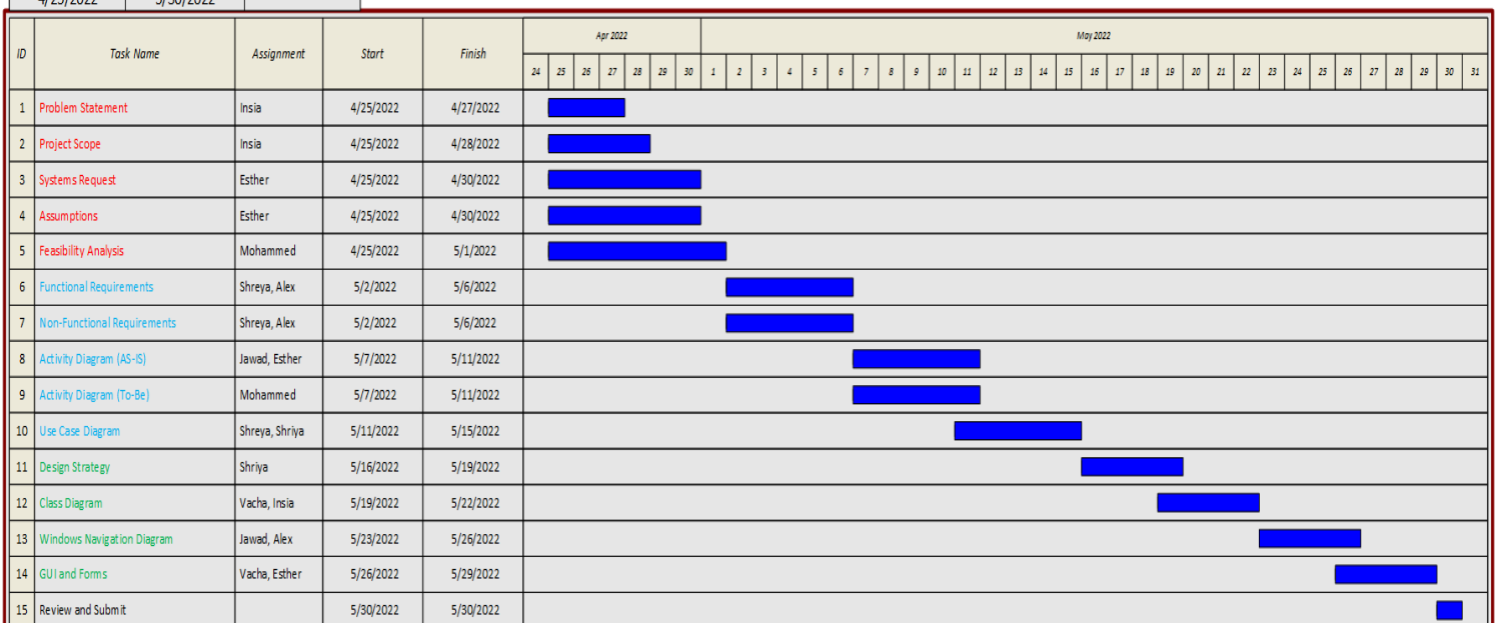
Total development cost		$98,000

Gantt Chart

CRM Gantt Chart

Start Date:	Projected End Date:	Actual End Date:
4/25/2022	5/30/2022	

ID	Task Name	Assignment	Start	Finish
1	Problem Statement	Insia	4/25/2022	4/27/2022
2	Project Scope	Insia	4/25/2022	4/28/2022
3	Systems Request	Esther	4/25/2022	4/30/2022
4	Assumptions	Esther	4/25/2022	4/30/2022
5	Feasibility Analysis	Mohammed	4/25/2022	5/1/2022
6	Functional Requirements	Shreya, Alex	5/2/2022	5/6/2022
7	Non-Functional Requirements	Shreya, Alex	5/2/2022	5/6/2022
8	Activity Diagram (AS-IS)	Jawad, Esther	5/7/2022	5/11/2022
9	Activity Diagram (To-Be)	Mohammed	5/7/2022	5/11/2022
10	Use Case Diagram	Shreya, Shriya	5/11/2022	5/15/2022
11	Design Strategy	Shriya	5/16/2022	5/19/2022
12	Class Diagram	Vacha, Insia	5/19/2022	5/22/2022
13	Windows Navigation Diagram	Jawad, Alex	5/23/2022	5/26/2022
14	GUI and Forms	Vacha, Esther	5/26/2022	5/29/2022
15	Review and Submit		5/30/2022	5/30/2022



Analysis

Functional Requirements

1. Client Data Management

1.1 Lookup client profiles in the customer database
1.2 Recognize any issues with client data
1.3 Gather customer data from all channels in one place
1.4 Manage customer data in an organized matter
1.5 Effectively analyze consumer data
1.6 Monitor and forecast sales based on financial data
1.7 Manage customer engagements through targeted marketing in relation to data

2. Back End Data Collection and Management

2.1 Create service requests
2.3 Record transaction and client information
2.4 Complete customer requests

Non-Functional Requirements

1. Performance Requirements

A. Web server must be capable of processing multiple online orders at one time.
B. Web Server should process each transaction within 10 seconds, regardless of how many orders have been placed.
C. Web Server should validate log-in credentials within 5 seconds.
D. Gather data regarding inventory and update as each order is completed.

2. Operational Requirements

A. System must be able to store and retain data such as customer orders, the amount spent per account, what was purchased (coffee, CDs, food, or retail items), and customer email.
B. Data must be easily accessible to employees for analysis.
C. System should have both online and offline point-of-sale capabilities.
D. System should run within the Windows system and store data in the Cloud.
E. *System must have 99.99% reliability. This would estimate that the server is only down for under one hour each year.
F. System must be able to put back-ordered items into a queue and let customers know of an estimated wait time.
G. System should email receipts to customers without any action from the employees.

H. Web server should reliably pass forward information to a message queue which employees can view to prepare products for customers.
I. The system developed should be easy to use for both employees and customers.
J. Inventory should automatically be updated after the cashier inserts what is being sold into the system, or customer orders from a kiosk or online.
K. The website should have ease of use capabilities and nice aesthetics to accurately portray the camaraderie and consistency of the business.

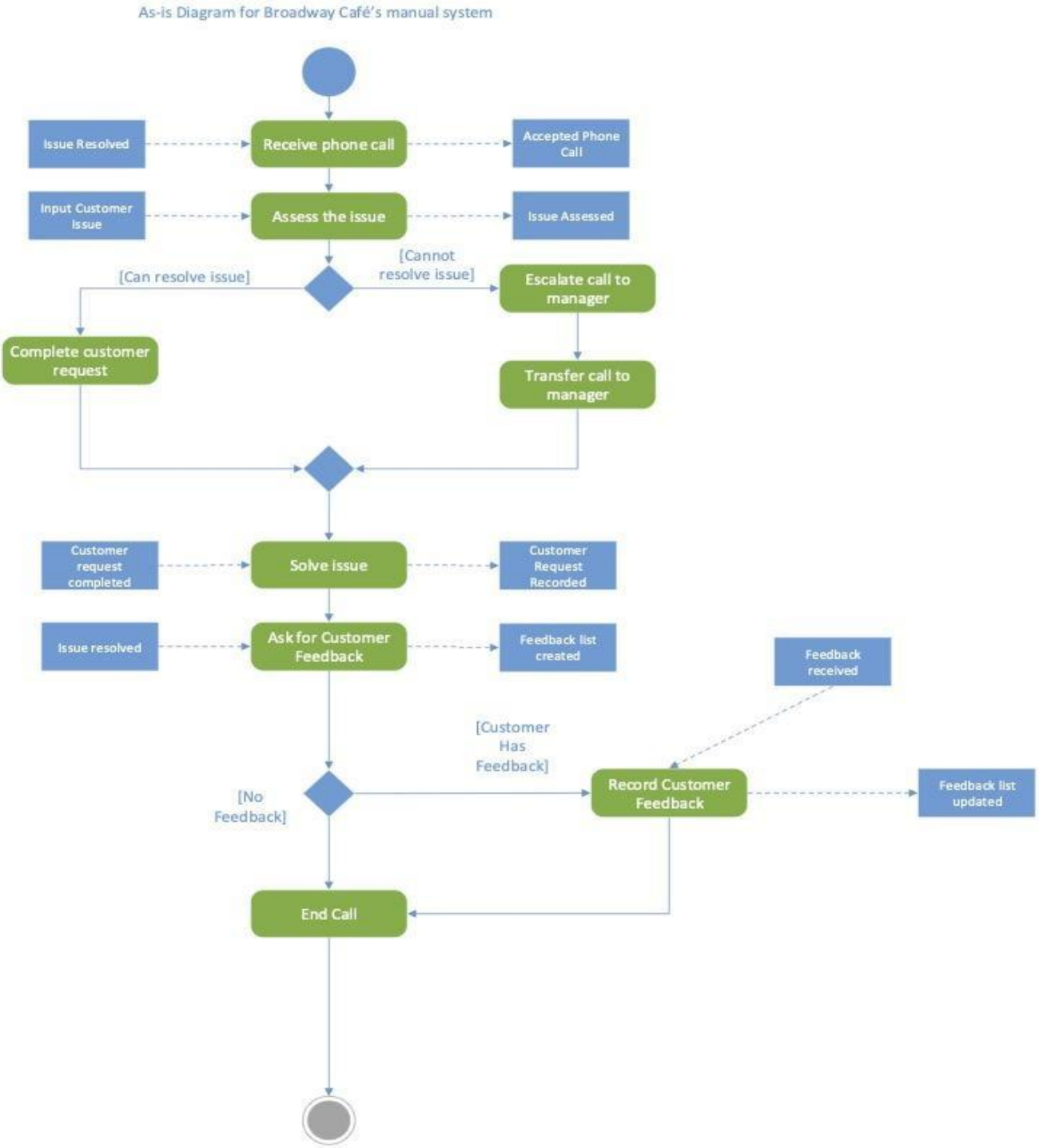
** Please note that according to statistics from Cyberciti, a system with 99.99% reliability would be down for about 52 minutes per year**

3. Security Requirements

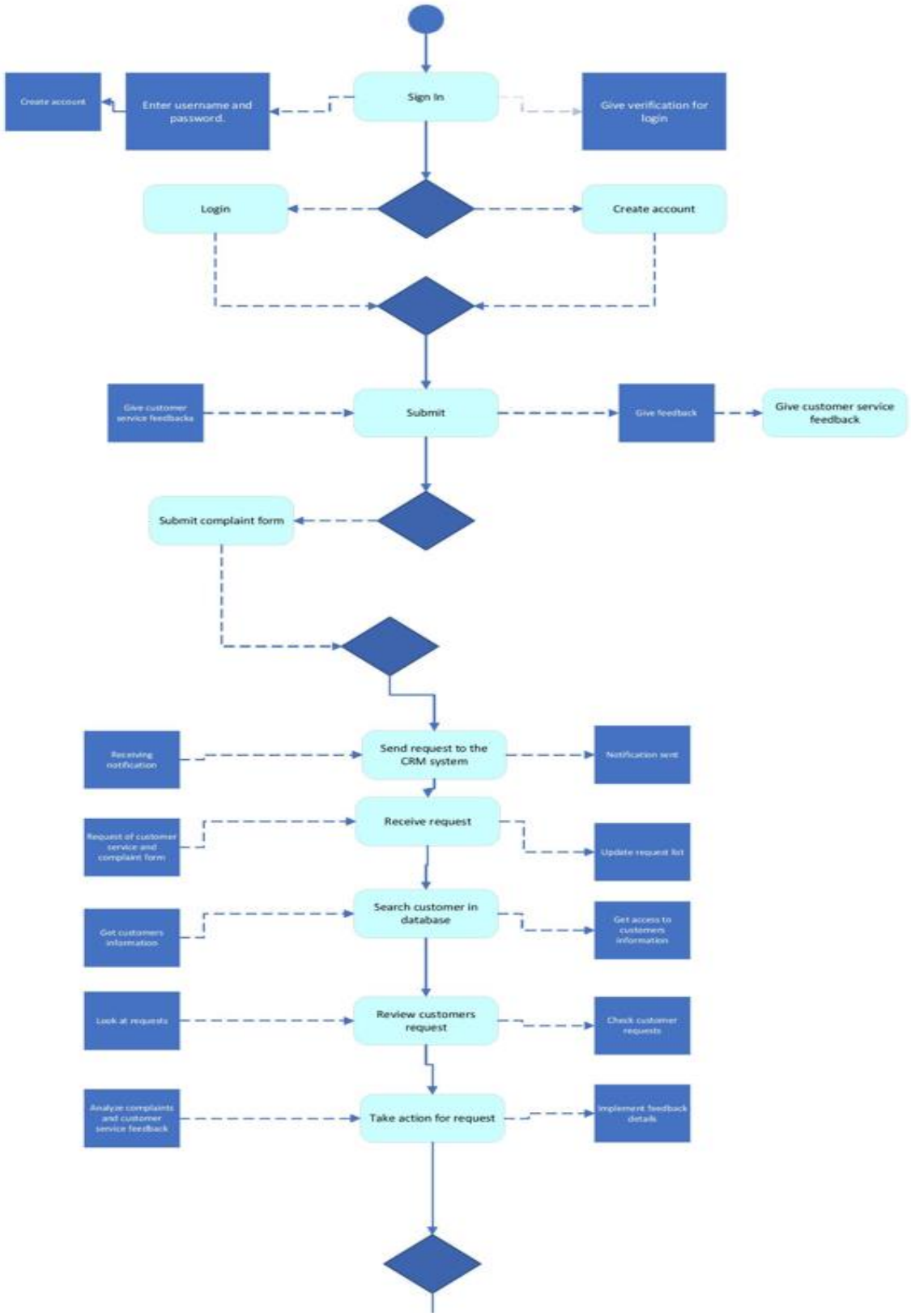
A. Only managers can access potentially personal data after undergoing training on how to deal with sensitive information.
B. Only managers not working the register can count the cash at the end of the day.
C. Only managers can approve timesheets, schedule changes, and paid time off.
D. Personal customer information should be encrypted when stored, such as passwords or payment information.
E. Only managers can order new inventory when it is running low.

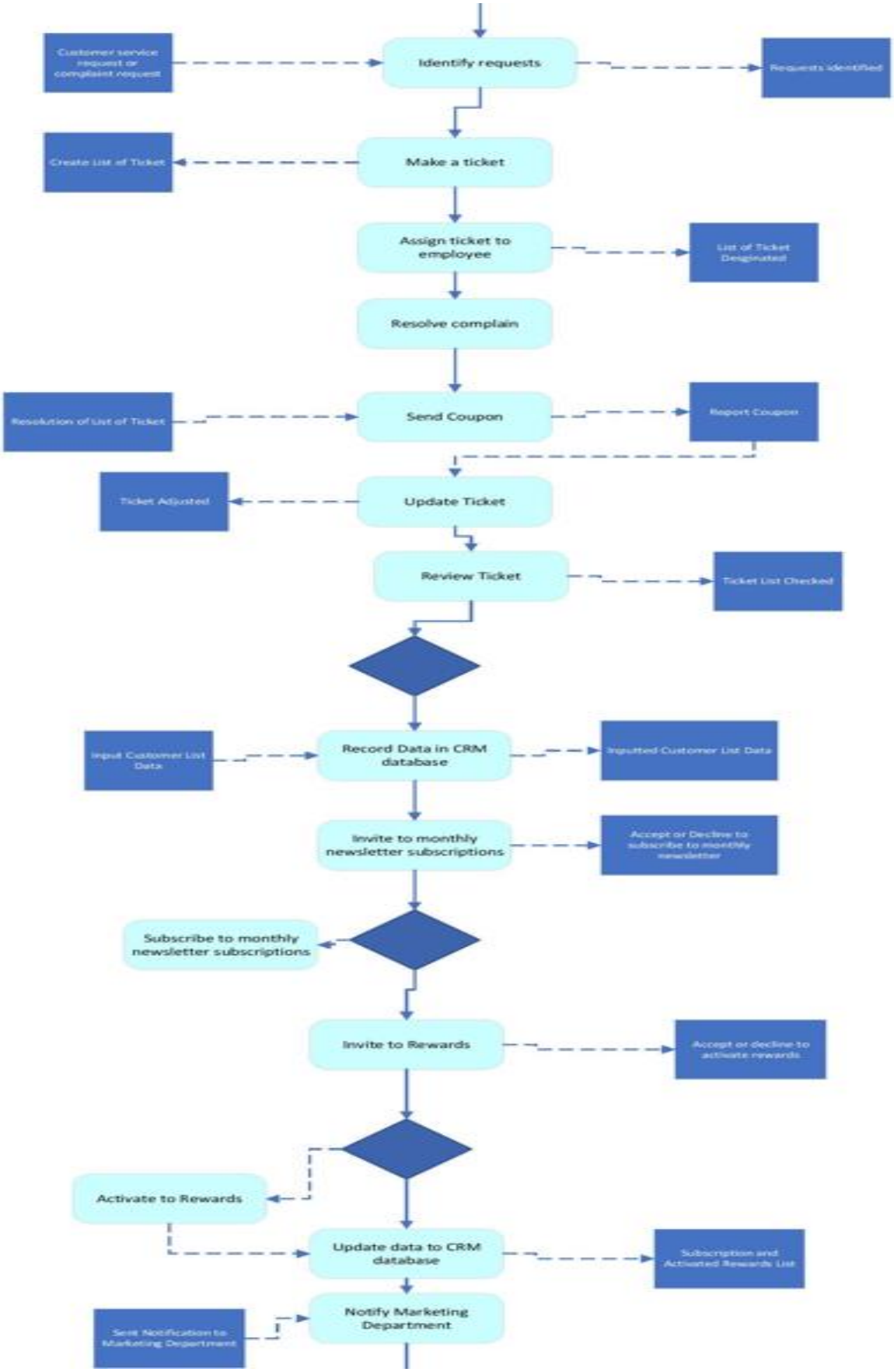
Activity Diagram

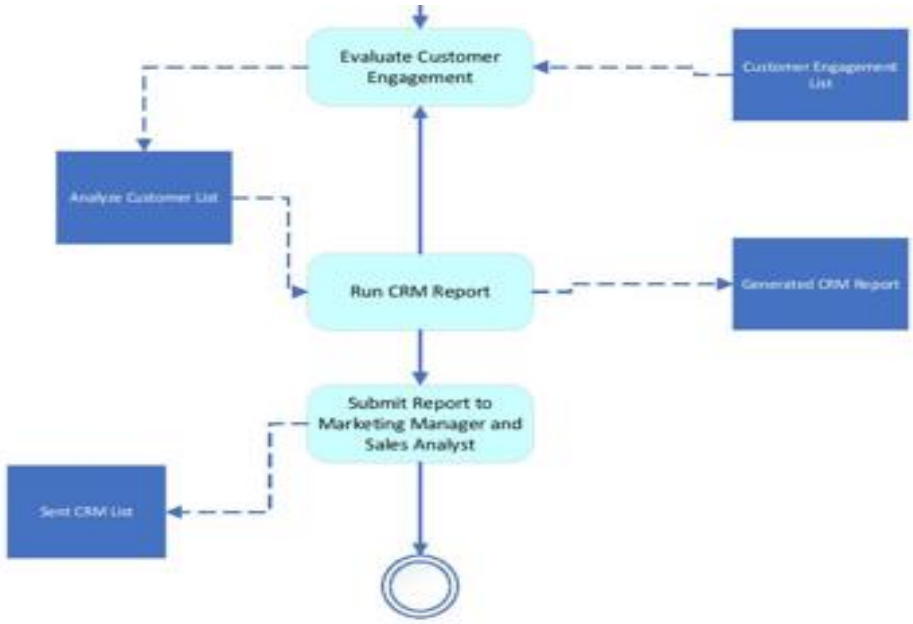
As-Is Diagram



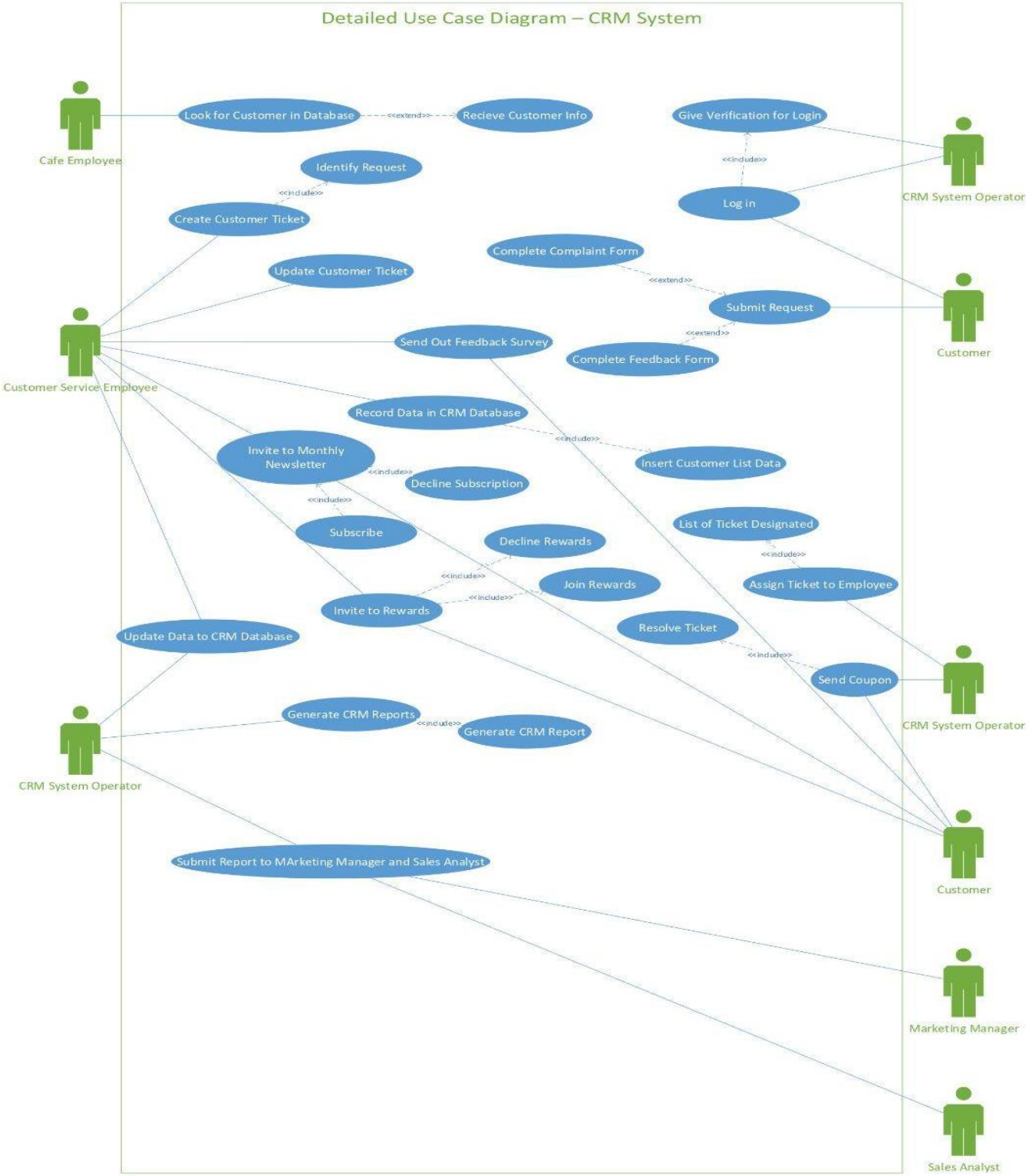
To Be Diagram




Customer service request or complaint request
Identify requests
Requests identified
Create List of Ticket
Make a ticket
Assign ticket to employee
List of Ticket Designated
Resolve complain
Resolution of List of Ticket
Send Coupon
Report Coupon
Ticket Adjusted
Update Ticket
Review Ticket
Ticket List Checked
Input Customer List Data
Record Data in CRM database
Inputted Customer List Data
Invite to monthly newsletter subscriptions
Accept or Decline to subscribe to monthly newsletter
Subscribe to monthly newsletter subscriptions
Invite to Rewards
Accept or decline to activate rewards
Activate to Rewards
Update data to CRM database
Subscription and Activated Rewards List
Notify Marketing Department
Sent Notification to Marketing Department


Evaluate Customer Engagement
Customer Engagement List
Analyze Customer List
Run CRM Report
Generated CRM Report
Submit Report to Marketing Manager and Sales Analyst
Sent CRM List

Use Case Diagram

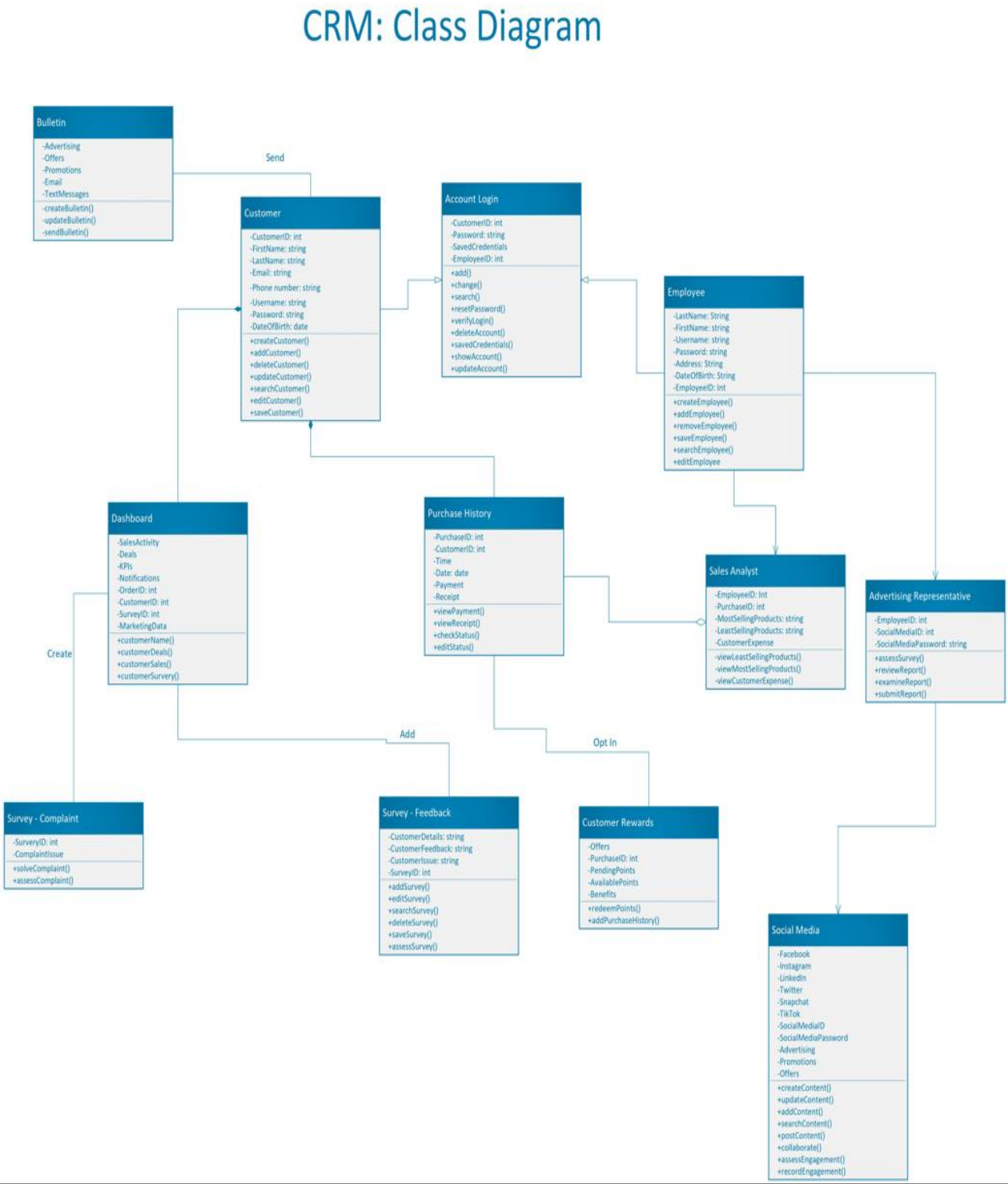


Design

Design Strategy

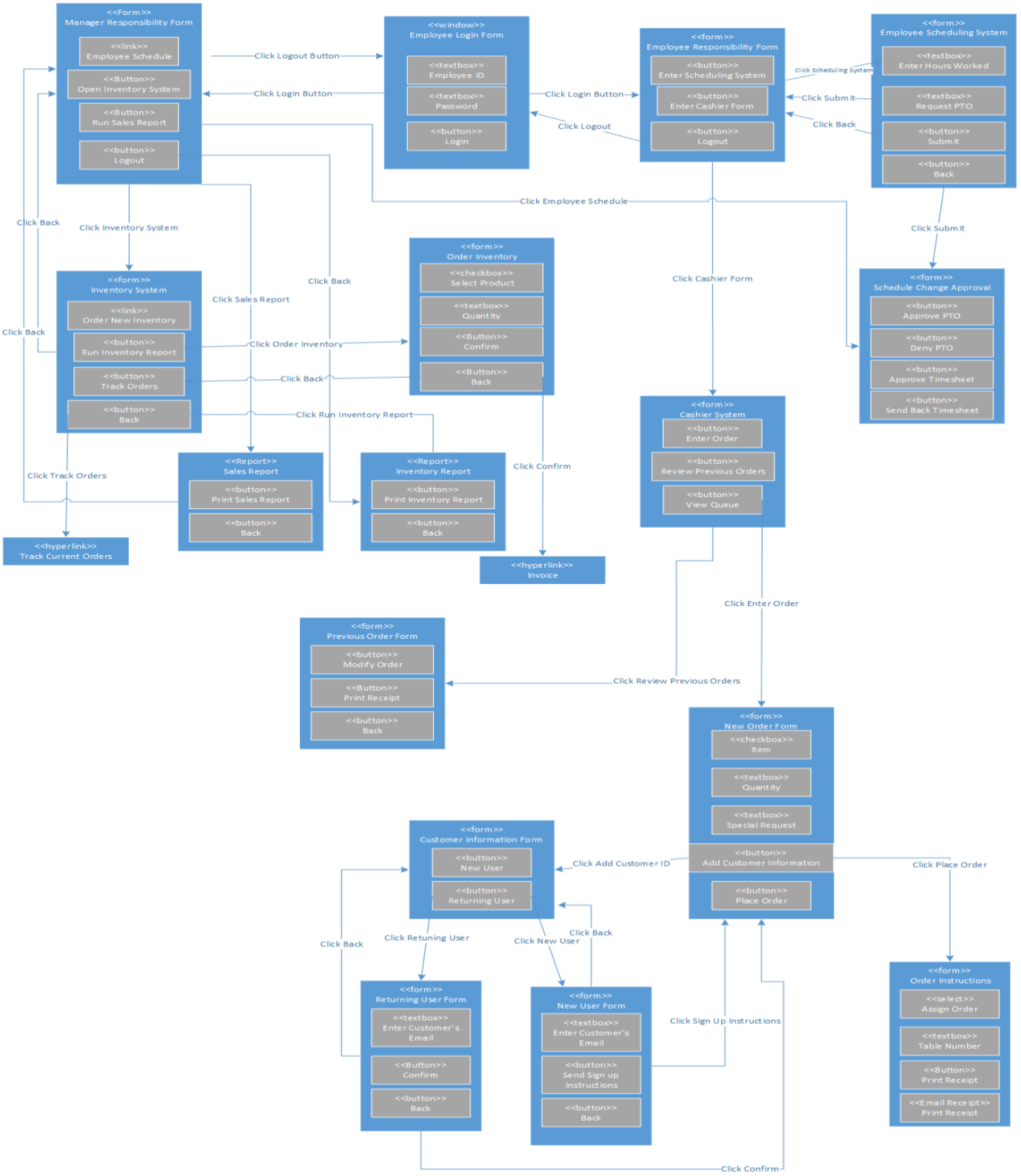
Based on the cafe’s business needs, our team decided that it would be best for Broadway Cafe to have a packaged system. The implementation of our design strategy is meant to create a more streamlined and efficient customer service experience. The new systems we’ve put in place will help maintain customer retention through feedback surveys and rewards programs with additional perks to promote more business. The new system also records customer information, so it can start to determine their preferences in order to better serve customers' needs. In terms of implementation, while we do not have the resources to code and create the system, our project manager will be on-site and ready to help supervise this project and achieve our client’s goal.

Class Diagram

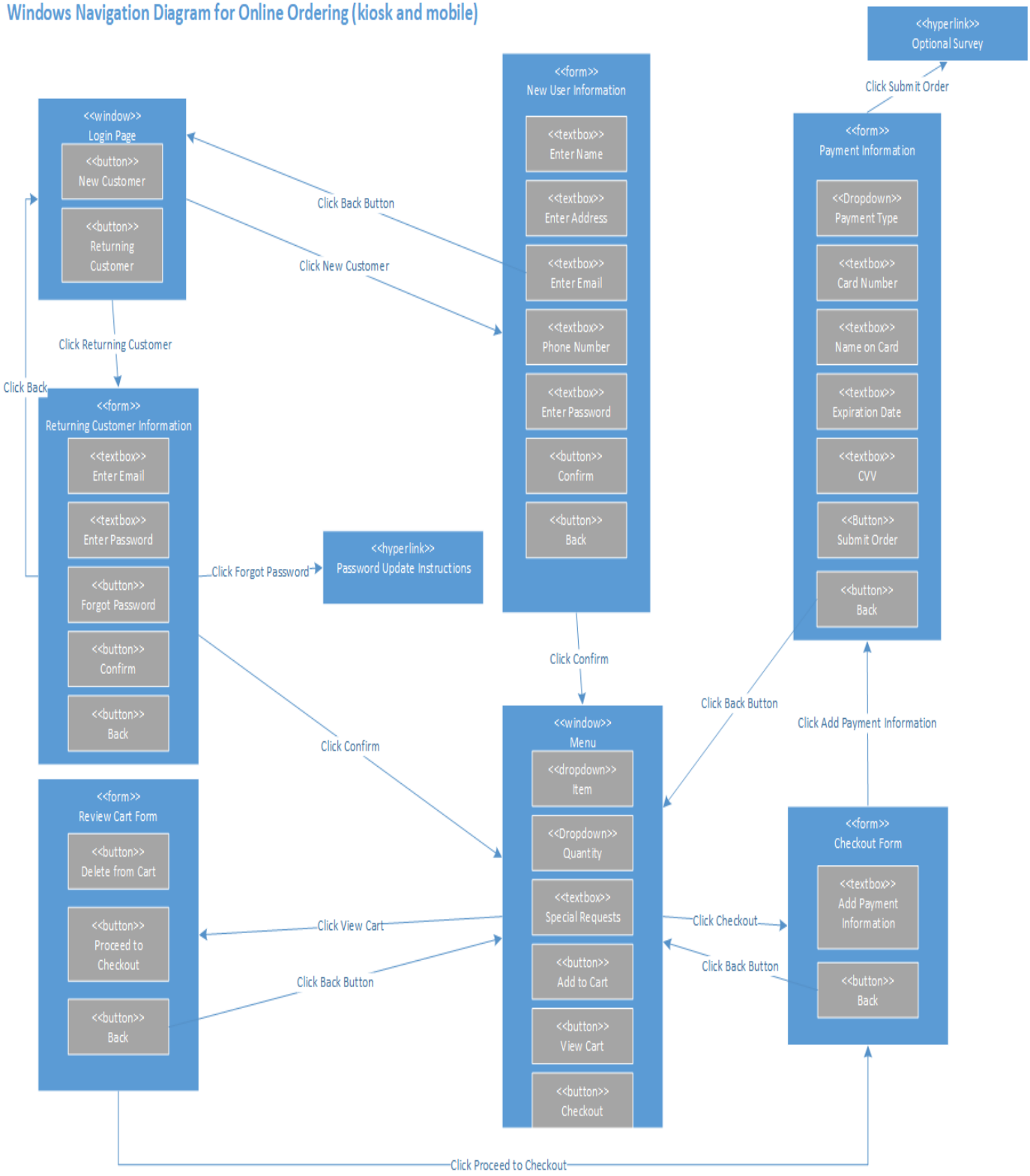


Windows Navigation Diagrams

Windows Navigation Diagram for Employee Processes

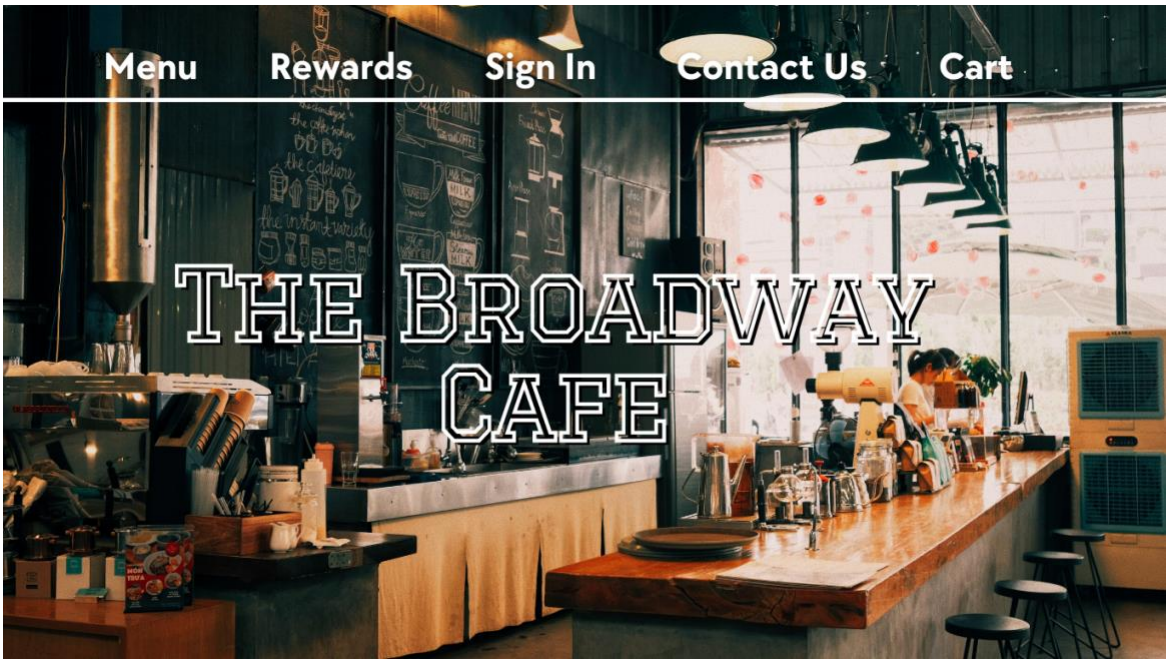


Windows Navigation Diagram for Online Ordering (kiosk and mobile)

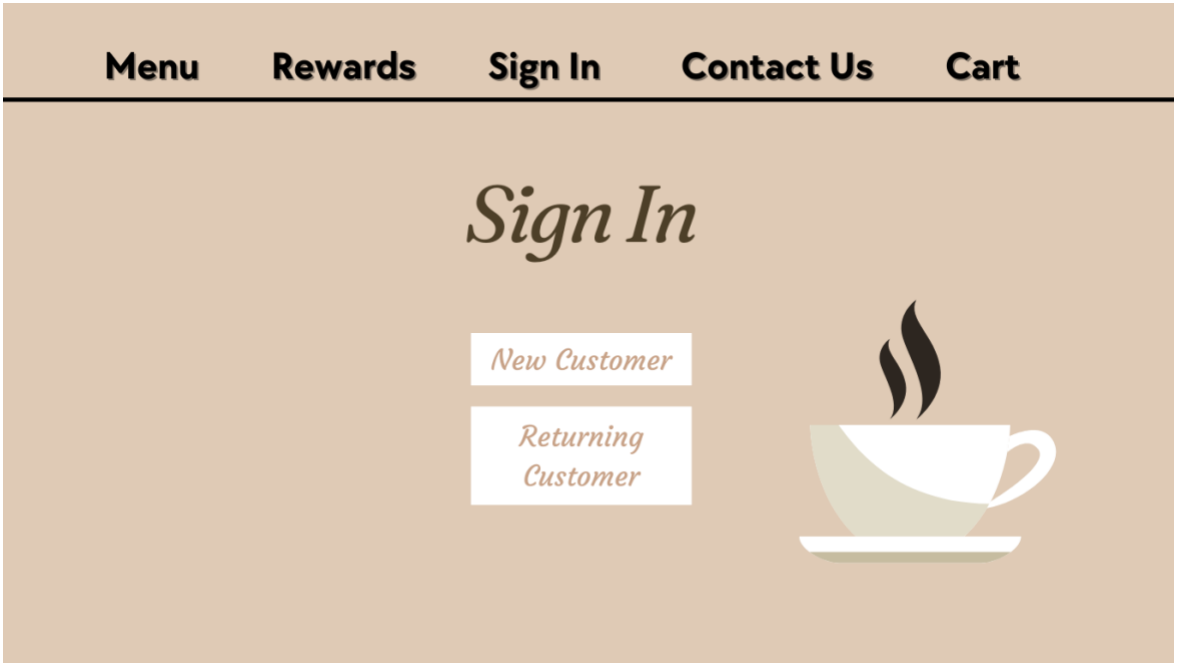


Front End GUI/Forms

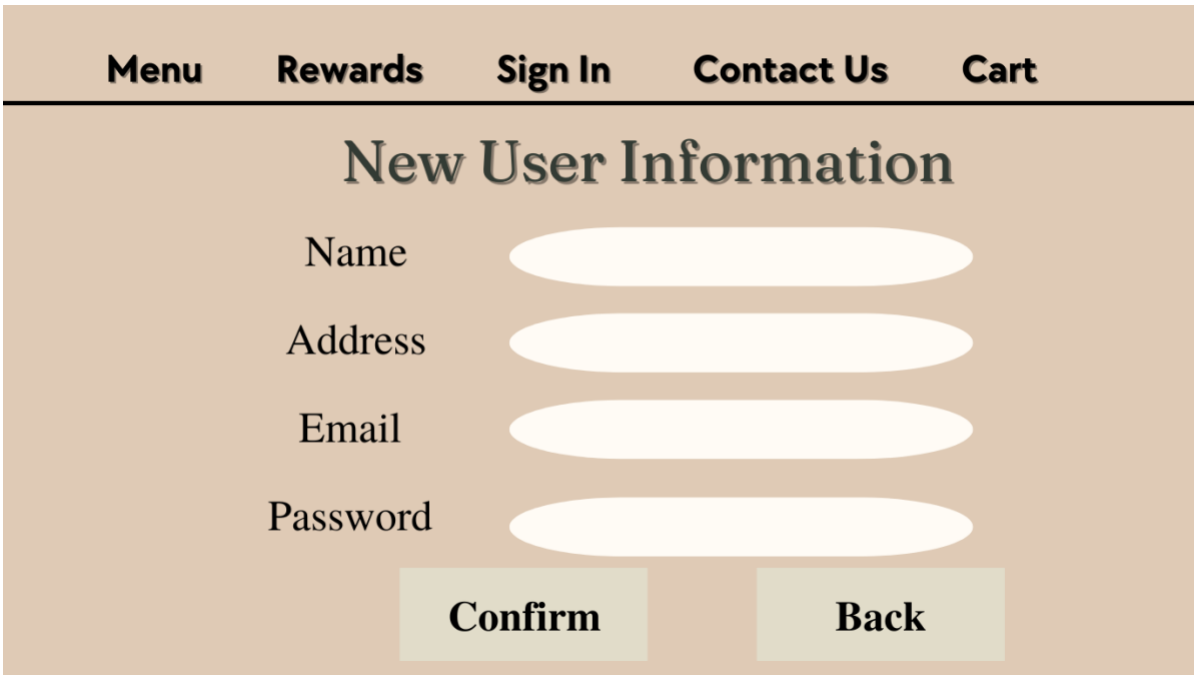
Home Page



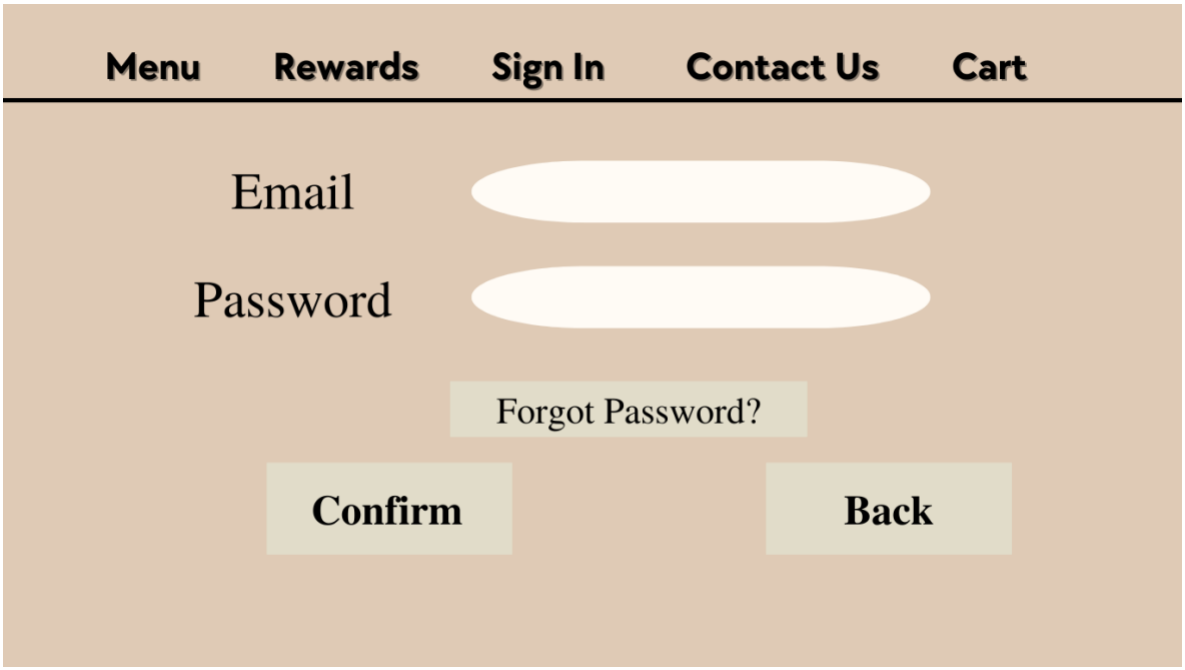
Login Page



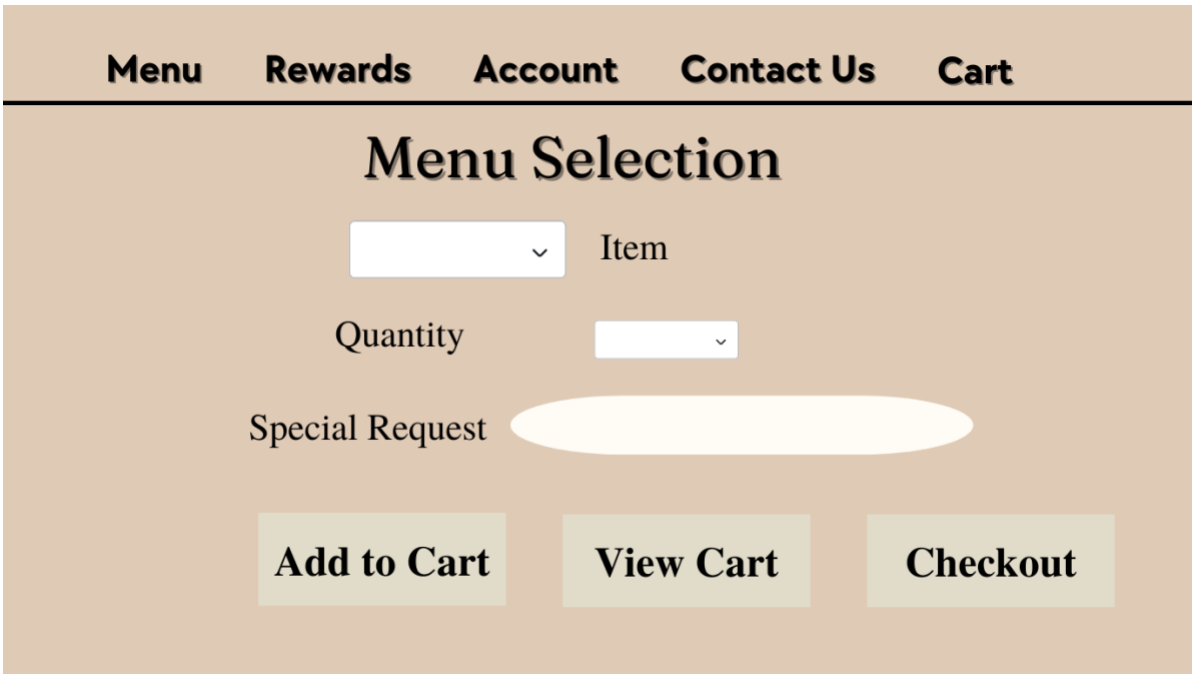
New Customer



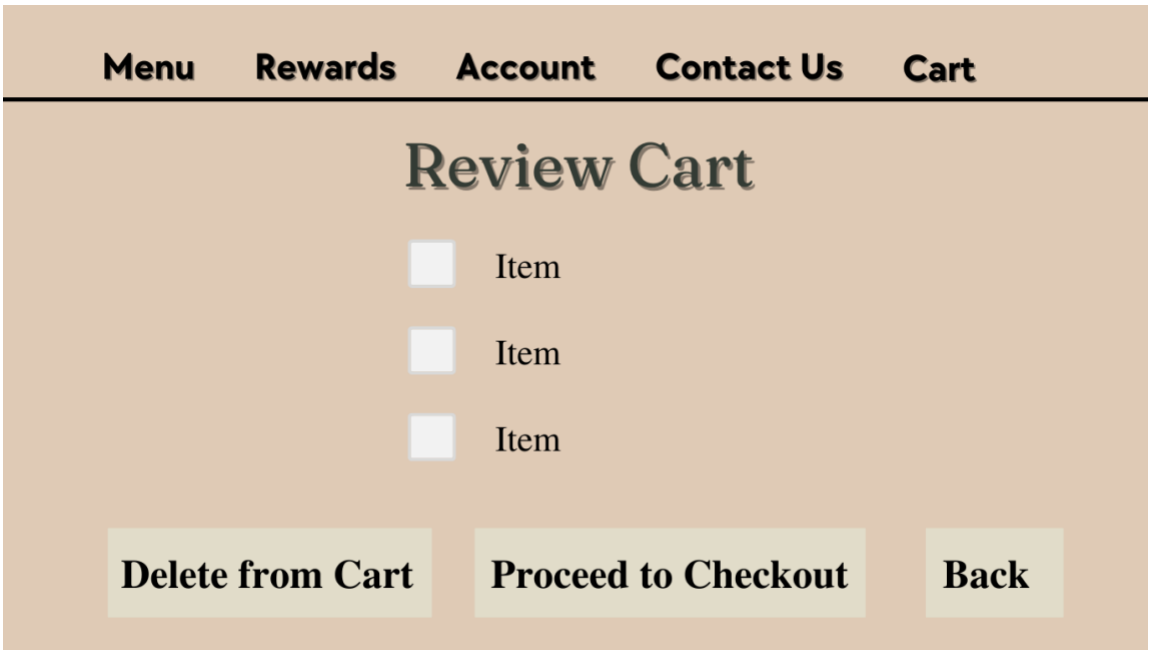
Returning Customer



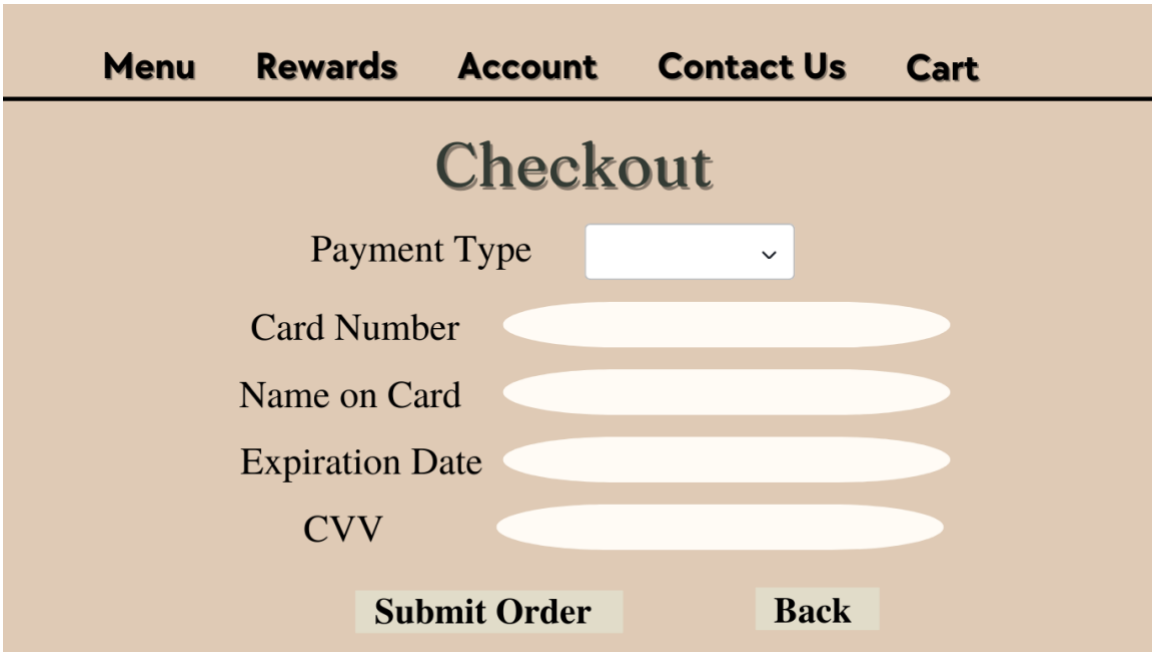
Menu



Review Cart

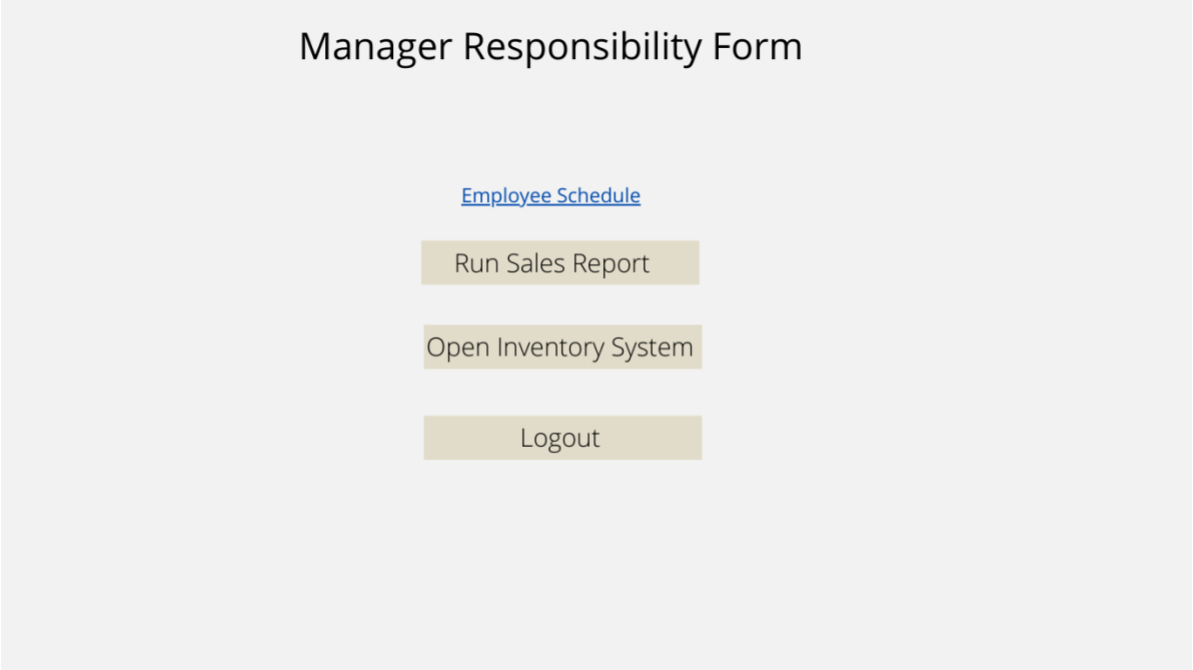


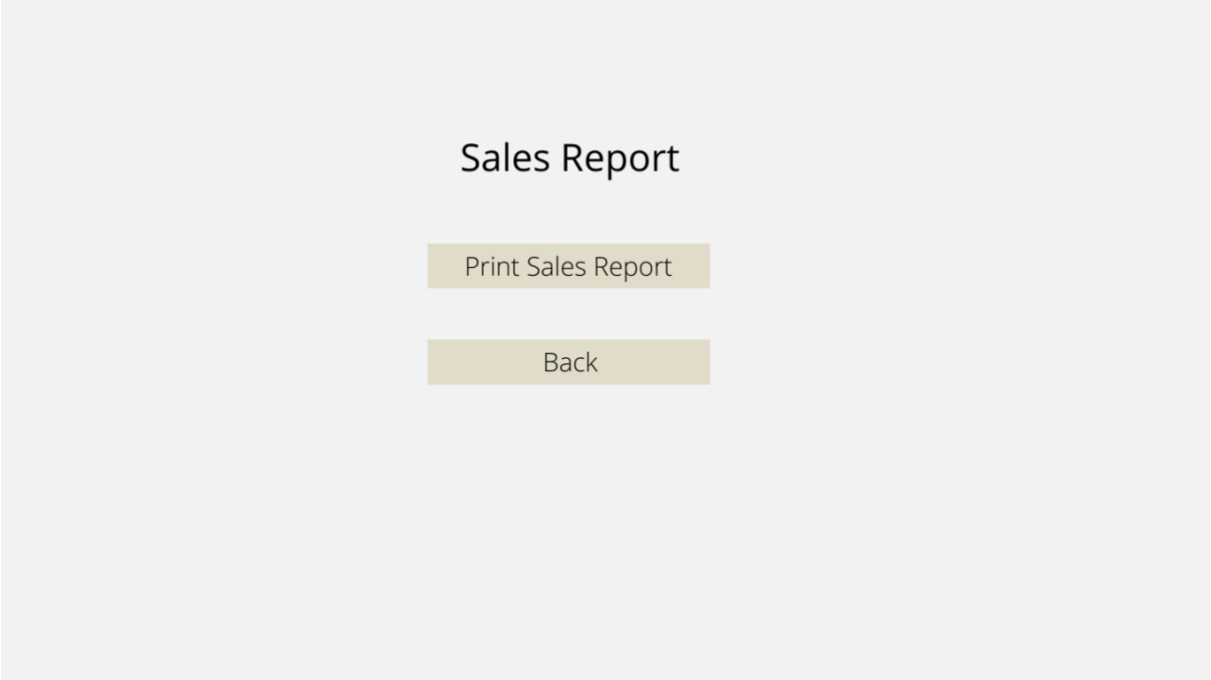
Checkout



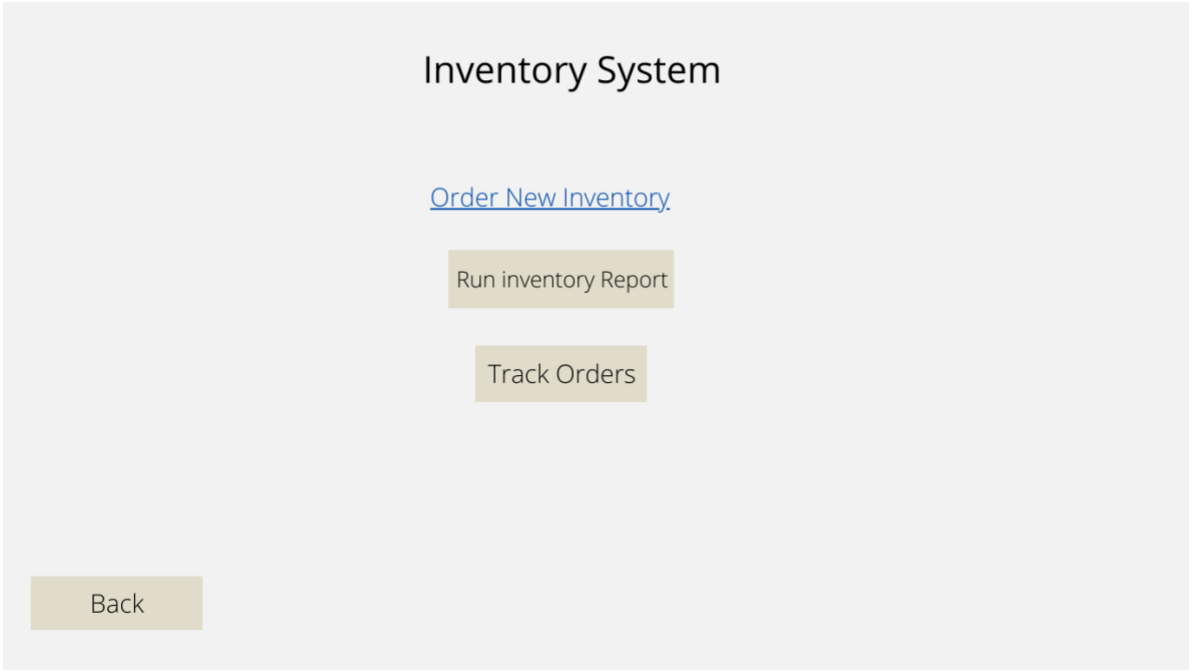
Survey

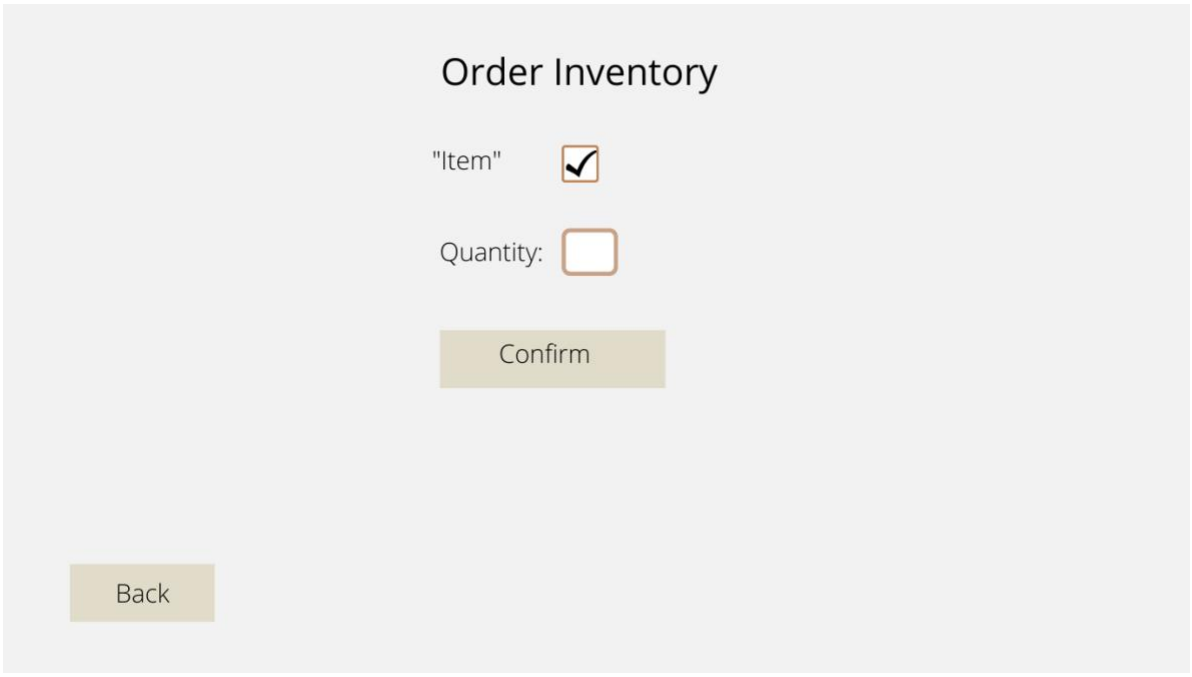
Back-end GUI

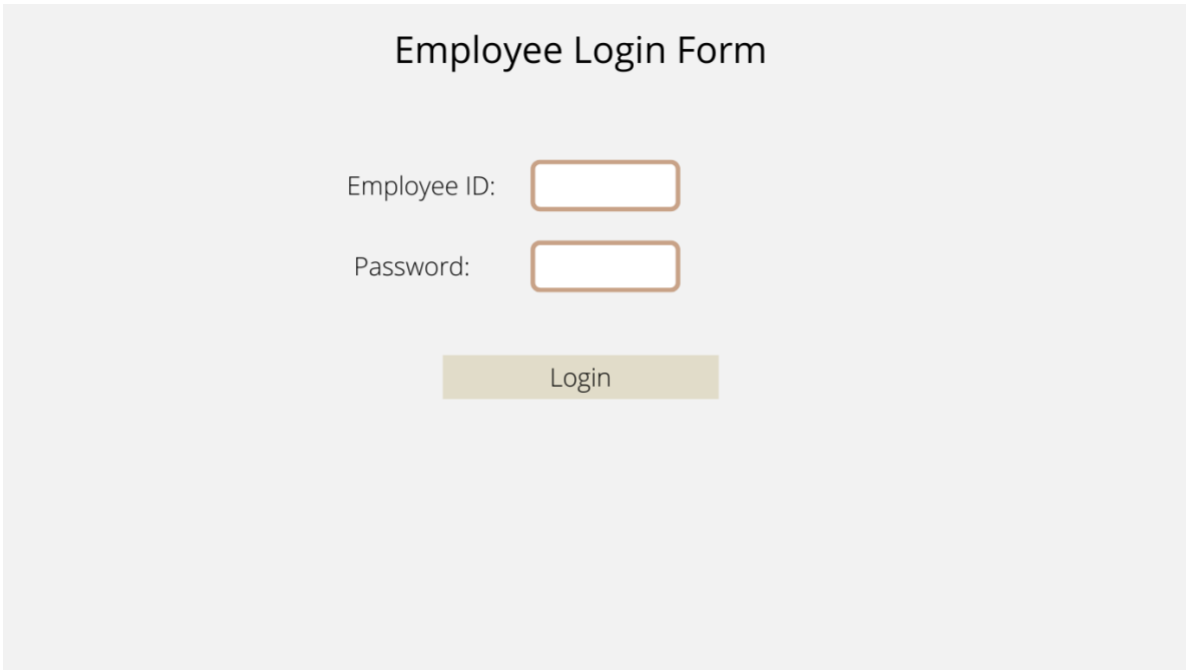

Manager Responsibility Form
Employee Schedule
Run Sales Report
Open Inventory System
Logout


Sales Report
Print Sales Report
Back

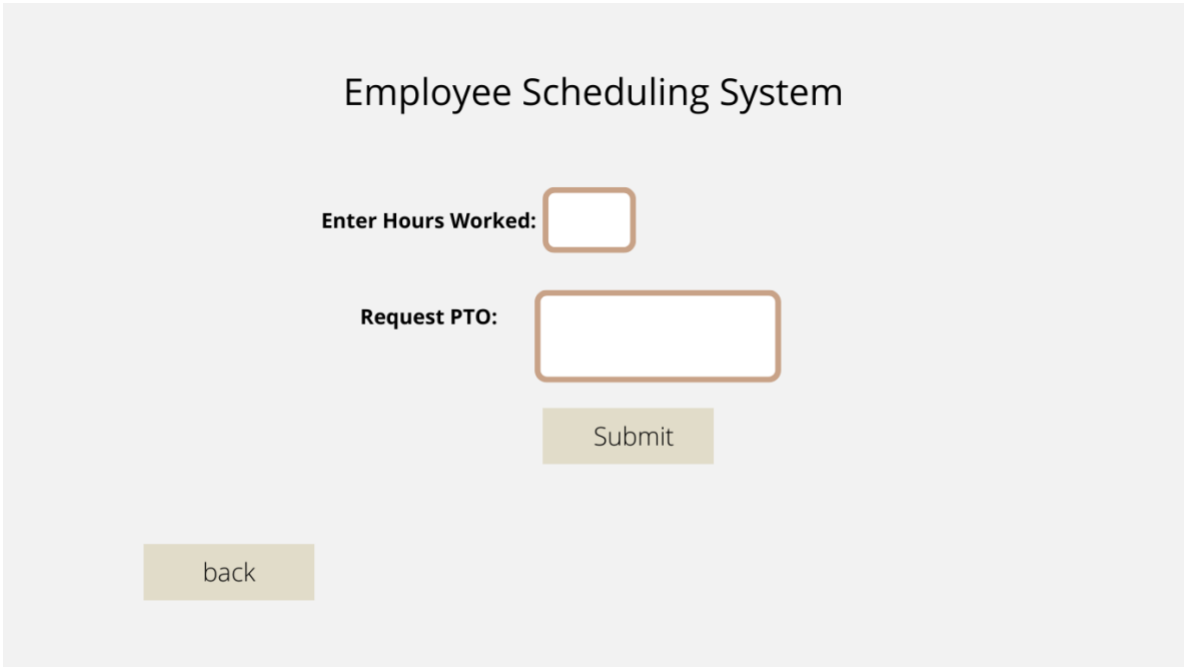

Inventory Report
Print Inventory Report
Back

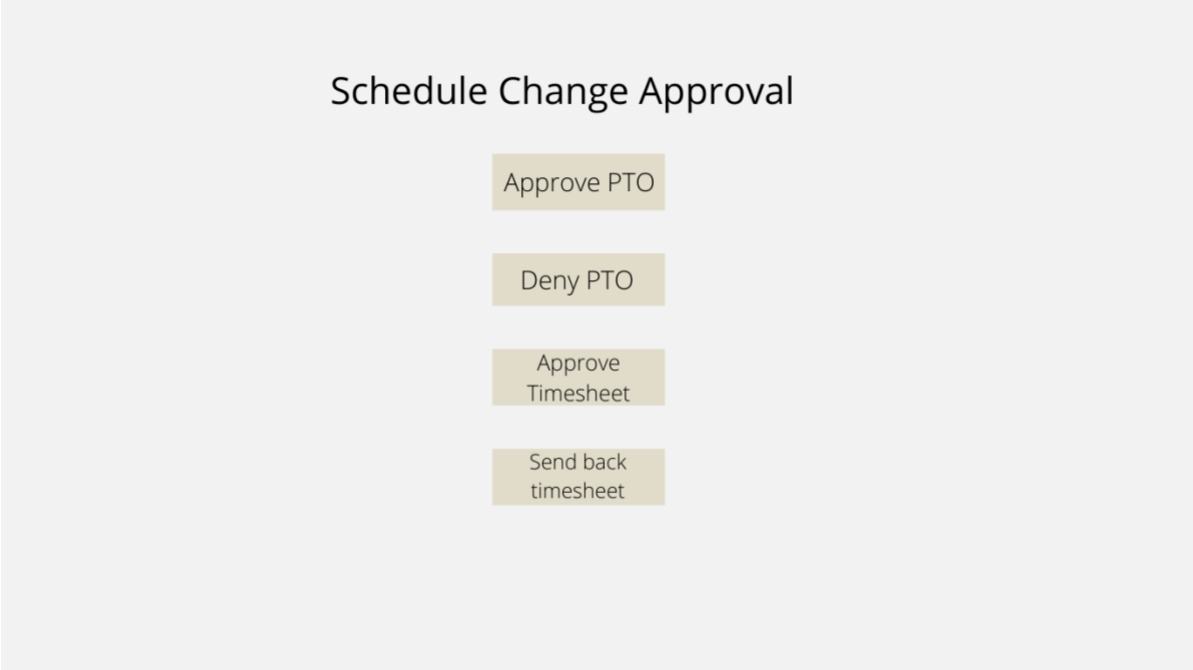

Inventory System
Order New Inventory
Run inventory Report
Track Orders
Back

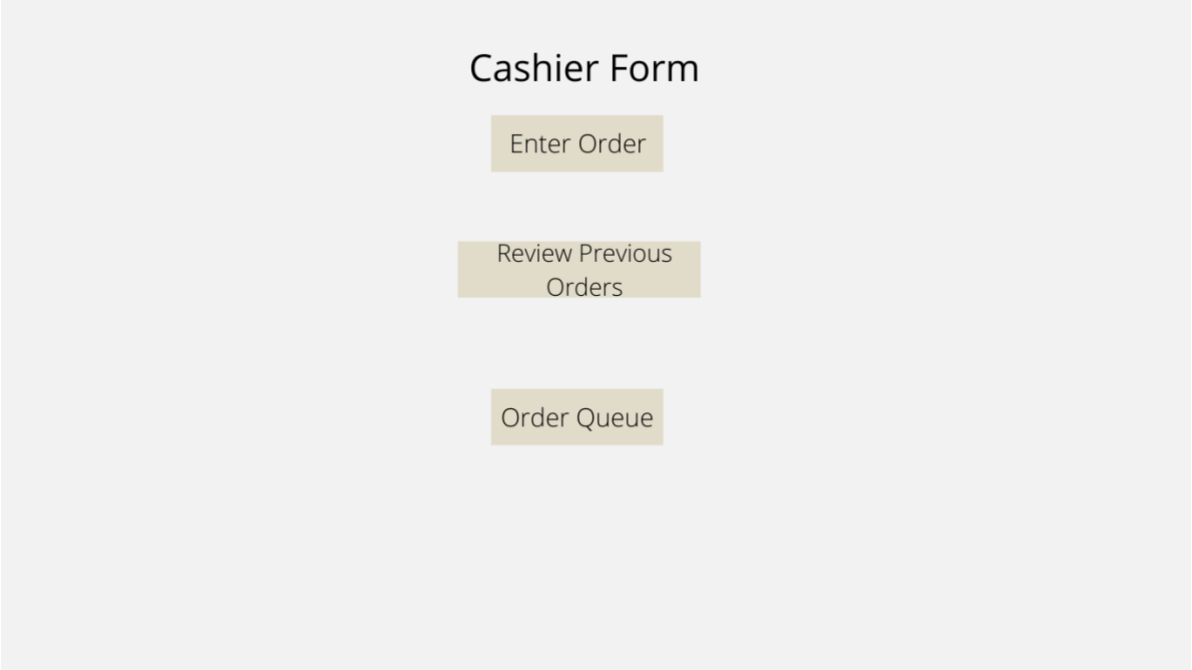

Order Inventory
"Item"
Quantity:
Confirm
Back

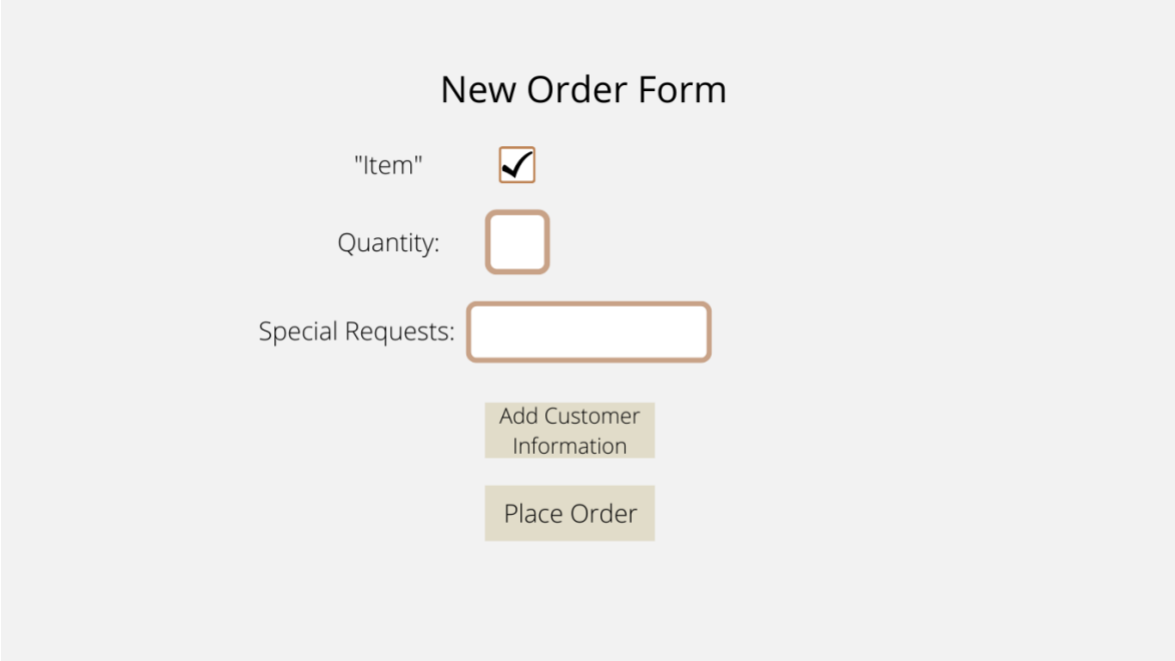

Employee Login Form
Employee ID:
Password:
Login

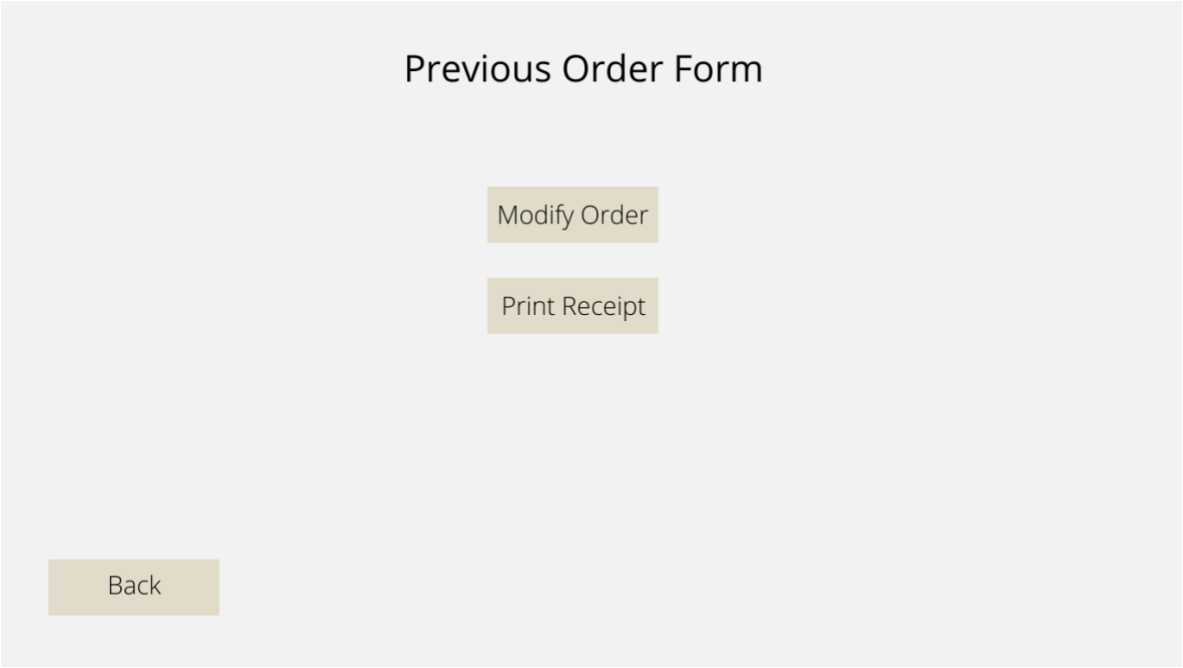

Employee Responsibility Form
Enter Scheduling System
Enter Cashier Form
Back


Employee Scheduling System
Enter Hours Worked:
Request PTO:
Submit
back


Schedule Change Approval
Approve PTO
Deny PTO
Approve Timesheet
Send back timesheet


Cashier Form
Enter Order
Review Previous Orders
Order Queue


New Order Form
"Item"
Quantity:
Special Requests:
Add Customer Information
Place Order


Previous Order Form
Modify Order
Print Receipt
Back

Appendix

Project outline:

Planning

- Problem statement – Insia Haroon
- Project scope- Insia Haroon
- Systems request- Melary
- Assumptions- Melary
- Feasibility analysis (tech, economic, org) - Mohammed
- Work breakdown structure (Gantt chart)- Alex Sereleas

Analysis

- Requirements (functional and non-functional) - Shreya Rawal, Alex
- Activity diagram (as-is and to-be) -
  - As is: Jawad, Melary
  - To-be: Mohammed
- Use case diagram – Shreya and Shriya

Design

- Design strategy- Shriya
- Class Diagram – Vacha Thakkar, Insia
- Windows navigation diagram – Jawad, Alex
- GUI and forms – Vacha Thakkar and Melary

Team Contract

Expectations

1. Meeting rules:
   - Meets on time through zoom if needed and actively participates during zoom calls.
   - Be serious about the work
   - Be respectful
2. Communication rules:
   - Communicates with the entire team
   - Gives updates to the team on their progress
   - Within 24-hour communication
3. Work Progress
   - Completes assigned work thoroughly and on time.
   - Even distribution of work within the project
   - Reach out for help early instead of waiting closer to the due date.

Repercussions

1. If there is a problem once, we talk it out with group members and act accordingly.
2. Each member gets three strikes. On the second, they will receive fewer credits than the other team members on the project, and on the third, they will receive zero credits and get removed from the project.

Team Members:

Mohammed Ganny	Signature: **Mohammed Ganny**
Insia Haroon	Signature: **Insia Haroon**
Shriyadita Malisetty	Signature: **Shriyadita Malisetty**
Shreya Rawal	Signature: **Shreya Rawal**
Alexander Sereleas	Signature: **Alexander Sereleas**
Vacha Thakkar	Signature: **Vacha Thakkar**
Jawad Yousuf	Signature: **Jawad Yousuf**
Melary Vasquez	Signature: **Melary Vasquez**

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