

41026 Advanced Software Development

ASSIGNMENT 3 - PROJECT RELEASE 2

Group 8 - Tutorial Fri 1pm - 3pm

| Student ID | Student Name | Student Email |
|------------|---------------------|--|
| 24626487 | Hoang Lam Tran | hoanglam.tran@student.uts.edu.au |
| 14240131 | Owen.balnaves-james | owen.balnaves-james@student.uts.edu.au |
| 24621981 | Minh Phuc Duong | minhphuc.duong@student.uts.edu.au |
| 13980154 | Sanghyeon Park | Sanghyeon.Park-4@student.uts.edu.au |
| 13962915 | Oliver Wheeler | oliver.c.wheeler@student.uts.edu.au |

Table of contents

1. Updated Software Requirements

1.1 Functional Requirements

1.2 Non-functional Requirements

1.3 Security in the software

2. Software Project Plan

2.1 Project Schedule

2.2 Project timesheet

2.3 Project cost estimates

3. Updated Solution Architecture

3.1. Overall project architecture model

3.2. Models for individual user features

[3.4 Application Architecture model](#)

[4. Updated Solution Design](#)

[5. Continuous Deployment Design](#)

[6. Github Repository](#)

[7. Individual contribution logbooks](#)

List of Features for Release 2:

| Feature # | Feature | Description | Owner |
|-----------|--------------------------------|---|--------|
| #F101 | Reservation management | Users are able to book in a table number, time and date slot to reserve a table | Oliver |
| #F102 | Account management | Users are able to do activities regarding their account CRUD | Lam |
| #F101 | Login/logout | Enable strong password suggestion | Lam |
| #F105 | Menu management | Adding / editing / deleting items from menu & viewing menu and managing menu categories | Owen |
| #F106 | Order management | Users are able to order items | Phuc |
| #F107 | Add / update / view menu deals | Employees can add special menu deals | Oliver |
| #F109 | Event management | Customers can submit bookings for special events, including special preferences for an event. Employees can approve or reject special events, and customers can view if their event has been approved or not. | Owen |

| | | | |
|-------|-----------------------|---|-----------|
| #F108 | View Order statistics | The staff can view statistics on which items on the menu are ordered the most, also which customers are visited most. | Sanghyeon |
| #F110 | Table Management | The staff can view the number, capacity, and availability of tables and modify the availability. | Sanghyeon |

1. Updated Software Requirements

1.1 Functional Requirements

| User story # | As a / an | I want to | So that | Estimates (/10) | Priority | Status | Release | Owner | Process / service |
|--------------|-----------|--|--|-----------------|----------|-----------|---------|-------|--------------------|
| 101 | Customer | Receive a confirmation via email whenever I create new account | I can confirm that I have successfully created an account | 5 | H | Completed | R2 | Lam | Account management |
| 102 | Customer | The welcome page looks attractive and easy to navigate | I can easily navigate to my desired options | 4 | M | Completed | R2 | Lam | Login / Log out |
| 103 | Customer | The review information page looks more attractive and fancy | I can enjoy using the restaurant booking system | 4 | L | Completed | R2 | Lam | Account management |
| 104 | Customer | My card number is hidden initially when I'm reviewing my information | I can ensure that no one else could see and steal my card number | 2 | H | Completed | R2 | Lam | Account management |
| 105 | Customer | The system to enforce my use strong password | I can keep my password secured and make it hard to guess | 4 | H | Completed | R2 | Lam | Account management |

| | | | | | | | | | |
|------|--------------|--|---|---|---|-------------|----|------|--------------------|
| 106 | Customer | To be able to add my DOB | My information would look adequate | 2 | M | Completed | R2 | Lam | Account management |
| 206 | Customer | Create order | I can make an order for food from the restaurant | 5 | M | Backlog | R1 | Phuc | Order management |
| 207 | Customer | Add/remove items from an order | I can choose which items I want to order | 4 | H | Backlog | R1 | Phuc | Order management |
| 208 | Customer | Delete order | I can filter out orders I don't want | 2 | L | Backlog | R1 | Phuc | Order management |
| 209 | Customer | Submit order | I can submit my order and checkout | 2 | H | Backlog | R1 | Phuc | Order management |
| 210* | Customer | View past order | I can view my past orders and sort them based on date | 2 | H | Backlog | R2 | Phuc | Order management |
| 211* | Staff | Confirm order | I can receive and confirm order from customers | 3 | H | Backlog | R2 | Phuc | Order management |
| 301 | Staff | View / approve / reject special events | I can respond to special customer needs | 5 | L | Backlog | R2 | Owen | Event management |
| 302* | Customer | Specify my preferences for a special event | I can tailor the event to my needs | 8 | M | In progress | R2 | Owen | Event management |
| 303 | Customer | Register a special event | I can celebrate a special occasion | 9 | L | In progress | R2 | Owen | Event management |
| 304* | Customer | Request to cancel a booked event | I can keep my event plans up to date | 6 | M | Backlog | R3 | Owen | Event management |
| 400 | Staff member | Delete a menu item | I can keep the menu up to date | 3 | M | Completed | R1 | Owen | Menu management |
| 401 | Customer | View items on the online menu | I can choose what items to order | 5 | H | Completed | R1 | Owen | Menu management |
| 402* | Staff | Search the menu | I can find items to perform edit / delete | 9 | H | Completed | R1 | Owen | Menu management |
| 403* | Staff | View the profile of a menu item | I can check the details of that menu item | 4 | H | Completed | R1 | Owen | Menu management |
| 404* | Staff | Modify the profile of a menu item | I can keep the menu up to date | 7 | H | Completed | R1 | Owen | Menu management |

| | | | | | | | | | |
|------|----------|---|--|---|--------|-----------|----|-----------|------------------|
| 405* | Staff | Create menu item | I can keep the online menu up to date | 7 | H | Completed | R1 | Owen | Menu management |
| 406* | Staff | View editing history of menu item | I can determine who has made changes to that menu item | 9 | L | Backlog | R3 | Owen | Menu management |
| 407 | Staff | Search menu based on categories | I can find the price of a particular menu item for a customer | 7 | M | Completed | R1 | Owen | Menu management |
| 408* | Staff | Choose a category for menu items | I can help customers find menu items | 5 | H | Completed | R1 | Owen | Menu management |
| 409* | Staff | Add picture links to menu items | Customers can check the look of a dish they want to order | 4 | H | Completed | R1 | Owen | Menu management |
| 410* | Customer | Search the menu based on categories | I can easily locate particular types of food | 7 | M | Completed | R1 | Owen | Menu management |
| 411 | staff | view the top-selling menu items and their quantities | make informed decisions about menu promotions | 8 | High | Completed | R1 | Sanghyeon | Order statistics |
| 412 | Staff | see a list of popular dishes ordered for a certain date | prepare for peak hours and ensure efficient kitchen operations | 7 | Medium | Completed | R1 | Sanghyeon | Order Statistics |
| 413 | Customer | access my order history | I can view what I've ordered most | 6 | Medium | Completed | R1 | Sanghyeon | Order Statistics |
| 414* | Staff | analyse customer preferences by viewing | create targeted marketing campaigns and | 9 | High | Completed | R1 | Sanghyeon | Order Statistics |

| | | | | | | | | | |
|-------|---------|--|--|---|--------|-------------|----|-----------|------------------|
| | | order statistics | promotions | | | | | | |
| 415* | Manager | view statistics on which menu items are ordered the most | I can better understand customer preferences and make informed decisions about menu changes. | 7 | Medium | Completed | R1 | Sanghyeon | Order Statistics |
| 416** | Staff | create a specials menu | I can provide the customer with an additional choices. | 8 | High | In Progress | R1 | Oliver | Menu Management |
| 417* | Staff | add items to the specials menu | I can provide the customer with items to purchase food from | 7 | High | In Progress | R1 | Oliver | Menu Management |
| 418* | Staff | edit items in the specials menu | make it so I can edit prices or edit that the restaurant has run out of ingredients to serve the special | 7 | High | In Progress | R1 | Oliver | Menu Management |
| 419* | Staff | delete items in the specials menu | I can provide the customer with the correct options when wanting to order food | 8 | High | In Progress | R1 | Oliver | Menu Management |

| | | | | | | | | | |
|------|-------|--|--|---|------|-------------|----|-----------|------------------|
| 420* | User | order items off of a specials menu | I have more variety of options to choose from. | 9 | High | In Progress | R1 | Oliver | Menu Management |
| 500* | Staff | view the real-time availability of tables in the dining area, | I can efficiently seat incoming guests without overbooking or causing long wait times. | 9 | High | Completed | R2 | Sanghyeon | Table Management |
| 501* | Staff | check the current status of all tables in my section | I can provide prompt service to guests and avoid double-assigning tables | 9 | High | Completed | R2 | Sanghyeon | Table Management |
| 502* | Staff | view the table occupancy history for the past week | I can analyse trends and make informed decisions about staffing and table arrangements.. | 9 | High | Completed | R2 | Sanghyeon | Table Management |
| 503* | Staff | see which tables are reserved for special occasions or events, | I can provide appropriate service and make necessary arrangements. | 9 | High | Completed | R2 | Sanghyeon | Table Management |
| 504* | Staff | View most visited | I can manage the reservation | 8 | High | Completed | R2 | Sanghyeon | Order Statistics |

| | | | | | | | | | |
|------|-------|----------------------------------|--|---|--------|-----------|----|-----------|------------------|
| | | customer | | | | | | | |
| 505* | Staff | Change the availability of table | I can manage the availability of table | 7 | Medium | Completed | R2 | Sanghyeon | Order Statistics |

Updates made to user stories & data requirements from R1 report

The Functional Requirements table above is now marked with the new User stories number to make it easy to keep track of user stories. New user stories have been added in this Release to satisfy the customer's needs and requirements. We have improved the project by implementing new user stories.

1.2 Non-functional Requirements

| User Story # | As a/an | I want to | So that | Estimates | Priority | Status | Release | Owner | Process/Service |
|-----------------------|----------|--|--|-----------|----------|-----------|---------|-------|--------------------|
| Security Requirements | | | | | | | | | |
| UNF 100* | Customer | Be able to set a strong password with minimum length and complexity requirements | No one can guess my credentials | 5 | H | Completed | R2 | Lam | Account management |
| UNF 103 | Customer | Be able to set up MFA for my account | I can ensure that no one else can access my account without the second authentication factor | 3 | H | Backlog | R2 | Lam | Account management |
| UNF 102 | Customer | My session to automatically log out due to inactivity | I can protect my account from unauthorized access | 5 | H | Backlog | R2 | Lam | Account management |
| UNF 104 | Customer | My password to be securely stored using encryption | My password cannot be compromised | 5 | H | Backlog | R2 | Lam | Account management |

| | | | | | | | | | |
|--------------------------|----------|--|--|---|---|-----------|----|--------|--------------------------|
| UNF 105 | Customer | My CVC is hidden & encrypted whenever I fill in payment details | No one else can view my CVC | 8 | H | Completed | R2 | Lam | Payment management |
| UNF 106 | Customer | To be able to access my account activity history | The system can notify me any suspicious activities | 7 | M | Backlog | R2 | Lam | Security management |
| UNF 107 | Customer | Be notified of logins from new devices | I am alerted if my account was accessed by another user | 6 | M | Backlog | R3 | Lam | Account management |
| UNF 108 | Staff | Be able to view the order but no one else | Can see the order detail | 5 | M | Backlog | R3 | Phuc | Order management |
| UNF 13 | Staff | Be able to require the system to only take minimal personal information from the customers | The customers do not need to provide too much their data | 5 | M | Backlog | R3 | Phuc | Order management |
| UNF 109 | Staff | Be able to keep security systems up to date | The system remains secure against the latest threats | 7 | H | Backlog | R3 | Owen | Security management |
| UNF 110 | Staff | Be able to cut off certain sections of the system | I can isolate a piece of malware from infecting the whole system | 8 | M | Backlog | R3 | Owen | Security management |
| UNF 111 | Staff | Be able to control which traffic has access into the network | I can block malicious traffic | 5 | H | Backlog | R3 | Owen | Security management |
| UNF 112 | Staff | Be able to control whether or not outside users can change the specials menu | I can protect the security of the specials menu | 6 | H | Backlog | R2 | Oliver | Specials Menu management |
| Performance Requirements | | | | | | | | | |
| UNF 201 | User | The system should respond within a specific time | I can enjoy using the system | 2 | M | Completed | R2 | Lam | Log in / Log out |

| | | | | | | | | | |
|---------|-------|--|--|---|---|-----------|----|-----------|----------------------|
| UNF 202 | User | The account management page should group categorize the information | I can easily find my preferred field to update / fill in. | 2 | M | Completed | R2 | Lam | Account management |
| UNF 203 | User | Ensure that third-party integrations do not highly impact on the system performance | I can have the best experience while using the website | 4 | L | Backlog | R2 | Lam | All features applied |
| UNF 204 | Admin | Ensure that user access to order statistics is role-based, allowing only authorised person to view | Protect sensitive data from unauthorised access and maintain compliance | 9 | H | Backlog | R2 | Sanghyeon | Order Statistics |
| UNF 205 | Staff | Ensure that the specials menu can be added to, edited, and deleted to | I can update the specials menu to the current requirements for the staff | 8 | H | Backlog | R1 | Oliver | Menu Management |
| UNF 206 | Staff | I want to have access to real-time database for table vacancy | I can efficiently manage table setting | 7 | M | Backlog | R2 | Sanghyeon | Table Management |
| UNF 207 | User | Access the system at any time | I can perform tasks on the system when I need to | 8 | H | Backlog | R3 | Owen | All features applied |

New updates made compared with Release 1:

We have added new security requirements to ensure our user's data is securely stored and to enhance the user experience. The previous requirements of Release 1 are deleted or edited to satisfy the security requirements of Release 2.

Performance requirements are also updated to optimise the product and enhance user experience.

All non-functional requirements are now re-marked.

1.3 Security in the software

The discussion about security in each feature is described below.

Feature 101 Log in / Log out (Hoang Lam Tran)

Confidentiality: Ensure that user credentials such as Password and Card Number are securely stored. The IT team should use strong encryption and hashing techniques to protect the data.

Availability: Ensure that the system is highly available. The system should implement redundancy and also use rate limiting and monitoring to defend against denial of service attempts and attacks.

Integrity: Utilize strong access control measures to guarantee that only authorized users can have access to the website. We should also take notice of any suspicious activities and conduct a security alert system for potential data breaches.

Feature 102 Account management (Hoang Lam Tran).

Confidentiality: Robust encryption should be applied in order to protect users' account information including the user's password, address, and payment information.

Availability: The account management feature should be highly available. Users should be allowed to recover their accounts in case they forget their password. However, make sure that authorized persons only can have access to this function.

Integrity: Implement a function that could defend against hijacking, such as changing email and resetting passwords. Moreover, developers and security staff should keep an audit trail of account-related activities to handle suspicious activities.

Overall, there are many security functions that should be implemented. In this project, I have applied confidentiality to enhance security performance. Data is stored securely in MongoDB. Availability is also being researched and deployed to enhance user experience. However, I am still doing research and planning on keeping an audit trail of activities. This could be done in the near future.

Feature 103 Reservation Management & Feature F107 add/update/view menu deals(Oliver Wheeler)

Confidentiality: This feature ensures that the customer reservation data is kept secret and away from potential attackers as it can contain private information such as names. This can be done through proper access controls and encryption.

Availability: This system is highly available, which is crucial to reservations as customers need to make reservations without interruption. Uptime measures can contribute to better availability.

Integrity: This means that reservation records have to be accurate and not to be tampered with. Things such as audit trails and access controls can help maintain the integrity of the program.

F107: Add / update / view menu deals

Confidentiality: Menu deals include the pricing of the product, as well as other important business details. Protecting this data from unauthorised access is crucial and proper authentication systems can help keep it secure.

Availability: The availability of the menus is important as customers need constant access during business hours. Staff are able to access and change menu deals at any time without any hurdles.

Integrity: Within this context it is important that menu deals are accurately represented and are not tampered with. Audit trails and proper authorisation can help maintain the menu deal information.

Feature 105 Menu management & 109 Event management (Owen balnaves-james)

One potential risk for the project is cross-site scripting. This is type of attack involves the injection of malicious client-side code into a trusted website, to allow an attacker to steal a user's information or redirect them to a malicious website. These attacks tend to be successful if a website fails to provide sufficient validation for code and data, allowing malicious code to be executed unintentionally by a user. A variety of forms of XSS exist including reflected cross-site scripting, stored XSS, and DOM XSS.

Data filtering is an effective way to prevent successful XSS attacks. Filtering can be done when input is sent to a user and as data is outputted by a user to the server. Input validation is a simple way to prevent XSS which will not require any extensive modifications to the software. This can also help prevent other types of attacks such as SQL injection. Input sanitizing has been already been implemented through parameterized queries, however further input validation has been planned for release 3 through the implementation of additional javascript input validation to submission forms, while HTML input validation will be incorporated into release 2, including fine-grained controlling of HTML input via the *pattern* attribute, which can be used to specific maximum and minimum lengths, as well as the types of characters allowed in an input box. The input attribute is also planned to ensure passwords meet minimum security requirements when customers or employees create an account on the site.

Additional security testing has been scheduled for release 3. This includes penetration testing to assist with identifying further vulnerabilities in code. Once such vulnerabilities have been identified, additional security features will be implemented according to updated requirements.

Finally, plans for additional backup servers have been laid out during the deployment phase of the code to ensure the website is available, even in the event the main servers are taken down due to DDOS attacks or other issues. This will ensure minimal failures of the system

and a fast recovery time if such failures do occur. Customers will be able to access the menu and event details when they need to.

Feature 106 Order management (Phuc)

Authentication: Only authorized staffs can see and manage the order for the customers which prevents them from being attacked by hackers. They can have personal data from customers 's order details

Data minimization: The system should only collect the data that is necessary for order management, and avoid collecting unnecessary personal information which could lead to data breaches.

Security: The system should carefully handle customer's payment details. This includes securing cardholder data, and conducting regular security assessments.

Feature 108: View Order Statistics & Feature 110: Table Management(Sanghyeon)

Unauthorised Access:

Risk: If there's no robust authentication and authorisation mechanism in place, unauthorised users might be able to view, modify, or delete sensitive data, which can lead to data breaches.

Implementation: We've Implemented strong user authentication methods in the log-in section. (like multi-factor authentication) so only authorised people can view order statistics and table management. Furthermore, suppose we're making this professional management system. In that case, we can use role-based access controls (RBAC) to ensure that only users with the proper roles or permissions can access order statistics and table management features.

Data Protection:

Risk: Without proper protection, sensitive data like order statistics can be accessed or leaked, leading to a potential loss of business or legal implications.

Implementation: We applied strict access controls and used data masking or pseudonymisation techniques to hide specific data fields. Furthermore, Employ network security measures such as firewalls and intrusion detection systems.

Data Integrity:

Risk: Unauthorized changes can lead to incorrect data representation, negatively impacting business decisions.

Implementation: We've implemented data validation checks to ensure that data remains consistent and accurate. Furthermore, we can use checksums or hashing to verify data integrity during storage and transmission.

Data Encryption:

For features 8 and 10, We've implemented some secure software development practices, including user authentication and data encryption. In the future, we can further enhance security by incorporating other measures such as intrusion detection systems, regular security audits, and employee training on security best practices.

2. Software Project Plan

2.1 Project Schedule

The actual project plan is described in the table below:

| User story | User story | Iteration | Feature |
|------------------------------------|--|-------------|---------------------|
| Release 1 (16/10/2023 – 3/11/2023) | | | |
| 101 | As a customer, i want to be able to receive a confirmation via email so that I can confirm that I have successfully created an account | I1 | Log in / Log out |
| 102 | As a customer, I want the welcome page looks attractive and easy to navigate | I1 | Log in / Log out |
| 103 | As a customer, I want the review information page looks more fancy and aesthetic | I2 | Account management |
| 104 | As a customer, I want my card number to be hidden when I'm reviewing my information so that I can ensure no one else could know it | I2 | Account management |
| 105 | As a customer, I want the system to require strong password so that I can make the password hard to guess | I2 | Account management |
| 106 | As a customer, I want to be able to add Date of Birth detail so that my information would look adequate | I3 | Account management |
| 208 | As a customer, I want to see my order details including personal information but no one else so that I can secure my information | I2 | Ordering management |
| 209 | As a customer, I want the order page look more clear and aesthetic | I2 | Ordering management |
| 210 | As a customer, I want to go to checkout an order so that I can pay for my meal | Iteration 2 | Ordering management |
| 302 | As a customer, I would like to specify my preferences for a special event so I can tailor the event to my needs | Iteration 3 | Event management |
| 303 | As a customer, I want to be able to register a | Iteration 3 | Event management |

| | | | |
|-----|--|-------------|--------------------------|
| | special event so that I can celebrate special occasion | | |
| 401 | As a customer, I would like to browse items on the online menu, so I can choose which items to order | Iteration 1 | Menu management |
| 403 | As a staff member, I would like to view the profile or a menu item so I can check the details of that menu item | Iteration 3 | Menu management |
| 501 | As a staff member, I want to view the top-selling menu items and their quantities so that I can make informed decisions about menu promotions. | Iteration 1 | Order statistics |
| 502 | As a staff member, I want to see a list of the top-selling menu items for a certain date so that I can ensure we have enough ingredients in stock for those popular dishes. | Iteration 1 | Order statistics |
| 503 | As a customer, I want to access to their order history so that I can view what I've ordered most | Iteration 1 | Order statistics |
| 504 | As a restaurant manager, I want to analyse customer preferences by viewing order statistics, so that I can enable targeted marketing campaigns and promotions. | Iteration 2 | Order statistics |
| 505 | As a restaurant manager, I want to view statistics on menu items ordered the most and by which customers so that to make informed decisions about menu changes | Iteration 2 | Order statistics |
| 506 | As a staff member I want to create a special menu so that I can provide the customer with additional choices. | Iteration 2 | Specials Menu Management |
| 507 | As a staff, I want to add items to the specials menu so that I can provide the customer with items to purchase food from | Iteration 2 | Specials Menu Management |
| 508 | As a staff member I want to edit items in the specials menu so that I can make it so I can edit prices or edit that the restaurant has run out of ingredients to serve the special | Iteration 2 | Specials Menu Management |
| 509 | As a staff member I want to delete items in the specials menu so that I can provide the customer with the correct options when wanting to order food. | Iteration 2 | Specials Menu Management |
| 510 | As a staff, I want to check the current status of all tables in my section, So that I can provide prompt service to guests and avoid double-assigning tables. | Iteration 2 | Table availability |
| 511 | As a staff, I want to view the table occupancy history for the past week, | Iteration 2 | Table availability |

| | | | |
|-----|---|-------------|------------------------|
| | So that I can analyze trends and make informed decisions about staffing and table arrangements. | | |
| 512 | As a staff, I want to see which tables are reserved for special occasions or events, So that I can provide appropriate service and make necessary arrangements. | Iteration 2 | Table availability |
| 513 | As a staff, I want to receive automated notifications when a table becomes available, So that I can efficiently manage the waitlist and seat waiting guests promptly. | Iteration 2 | Table availability |
| 514 | As a staff, I want to make reservations for customers, so that I can get them seated at a table | Iteration 2 | Reservation Management |
| 515 | As a restaurant manager, I want to view frequently visited customers on the bar chart and view ranks so that to reward VIP | Iteration 2 | Order statistics |

We have updated the plan for this Release (R1), Some changes include:

- User stories are now written in more detail so that we can easily keep track of them.
- Remove plans of R0
- Unfinished jobs of R0 are updated in R1
- Some non-functional requirements - such as encryption of data and payment information - has been moved to R3 so functional requirements can be prioritised

2.2 Project timesheet

Student name: Hoang Lam Tran

Leader: Hoang Lam Tran

Project: ASD Project R2

Subject: Advanced Software Development

| Day | Week 9 | Week 10 | Week 11 | Week 12 | Total |
|-----------|--------|---------|---------|---------|-------|
| Monday | 2 | | 2 | 2 | 6 |
| Tuesday | | 2 | 2 | 5 | 4 |
| Wednesday | 2 | | 2 | | 4 |
| Thursday | 2 | 3 | 1 | 3 | 9 |
| Friday | | 3 | 1 | | 4 |

| | | | | | |
|----------|-------|-------|-------|-------|--------|
| Saturday | 2 | | 1 | | 3 |
| Sunday | | | | | |
| Total | 8 | 8 | 9 | 10 | 30 |
| Rate | 80\$ | 80\$ | 80\$ | 80\$ | |
| Total | 640\$ | 640\$ | 720\$ | 800\$ | 2800\$ |

Student name: Minh Phuc Duong
 Leader: Hoang Lam Tran
 Project: ASD Project R2
 Subject: Advanced Software Development

| Day | Week 9 | Week 10 | Week 11 | Week 12 | Total |
|-----------|--------|---------|---------|---------|--------|
| Monday | | | 2 | | 2 |
| Tuesday | | 2 | | 3 | 5 |
| Wednesday | | | | 2 | 2 |
| Thursday | 2 | 3 | | 5 | 10 |
| Friday | | 3 | | | 3 |
| Saturday | | | 5 | | 5 |
| Sunday | | 1 | | | 1 |
| Total | 2 | 9 | 7 | 10 | 28 |
| Rate | 80\$ | 80\$ | 80\$ | 80\$ | 80\$ |
| Total | 160\$ | 720\$ | 560\$ | 800\$ | 2240\$ |

Student
name:

Owen.balnaves-james
 Leader: Hoang Lam Tran
 Project: ASD Project R2

Subject: Advanced Software Development

| Day | Week 9 | Week 10 | Week 11 | Week 12 | Total |
|-----------|--------|---------|---------|---------|--------|
| Monday | | 2 | 1 | 5 | 8 |
| Tuesday | 1 | 2 | | 4 | 7 |
| Wednesday | 3 | | 1 | 4 | 8 |
| Thursday | 2 | 1 | 1 | 3 | 7 |
| Friday | | 2 | 1 | 2 | 5 |
| Saturday | | | | | |
| Sunday | | | | | |
| Total | 6 | 7 | 4 | 18 | 35 |
| Rate | 80\$ | 80\$ | 80\$ | 80\$ | |
| Total | 480\$ | 560\$ | 320\$ | 1440\$ | 2800\$ |

Student name: Sanghyeon Park

Leader: Hoang Lam Tran

Project: ASD Project R2

Subject: Advanced Software Development

| Day | Week 9 | Week 10 | Week 11 | Week 12 | Total |
|-----------|--------|---------|---------|---------|--------|
| Monday | 2 | 2 | 1 | 5 | 8 |
| Tuesday | 3 | 2 | | 4 | 7 |
| Wednesday | 2 | | 1 | 4 | 8 |
| Thursday | | 1 | 1 | 3 | 7 |
| Friday | | 2 | 1 | 2 | 5 |
| Saturday | | | | | |
| Sunday | | | | | |
| Total | 7 | 7 | 4 | 18 | 35 |
| Rate | 80\$ | 80\$ | 80\$ | 80\$ | |
| Total | 560\$ | 560\$ | 320\$ | 1440\$ | 2880\$ |

Student name: Oliver Wheeler
 Leader: Hoang Lam Tran
 Project: ASD Project R2
 Subject: Advanced Software Development

| Day | Week 9 | Week 10 | Week 11 | Week 12 | Total |
|-----------|--------|---------|---------|---------|--------|
| Monday | 1 | 3 | | 3 | 7 |
| Tuesday | 3 | | 2 | 3 | 8 |
| Wednesday | 2 | 1 | 3 | | 6 |
| Thursday | | | 2 | 3 | 5 |
| Friday | 3 | 3 | 2 | | 8 |
| Saturday | | | | | |
| Sunday | | | | | |
| Total | 9 | 7 | 9 | 9 | 34 |
| Rate | 80\$ | 80\$ | 80\$ | 80\$ | |
| Total | 720\$ | 560\$ | 720\$ | 720\$ | 2720\$ |

Changes compared with release 1:

Some adjustments have been made to the timesheets to accommodate the additional time required to complete the updated list of user stories being implemented in release 1. Adjustments have been made according to the updated interactions of Release 0 and Release 1. Further adjustments have been made due to re-estimates of the time required to complete the user stories adding full working functionality for release 2.

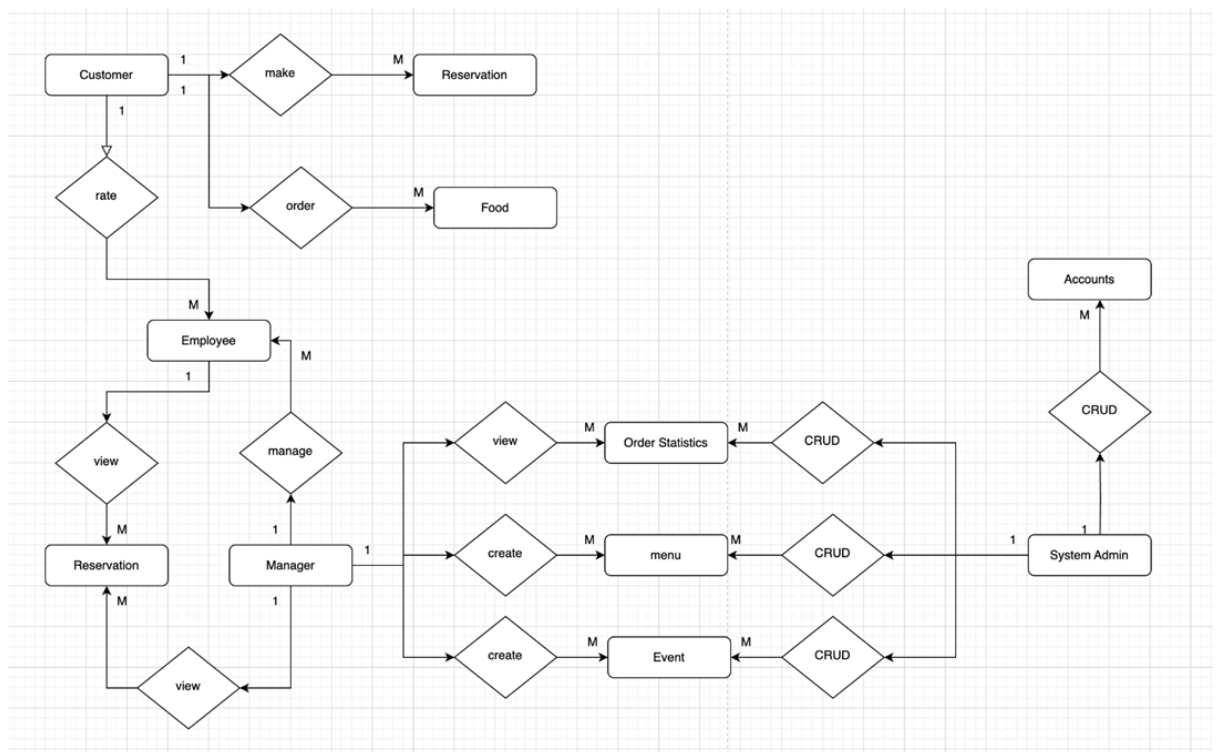
2.3 Project cost estimates

| Feature# | Owner | Number of Hours | Rate | Total |
|------------------------------|----------------|-----------------|------|---------|
| Release 2 | | | | |
| F102: Account management | Lam Tran | 20 | 80\$ | 1600\$ |
| F101: Login / log out | Lam Tran | 2 | 80\$ | 160\$ |
| F104: Reservation Management | Oliver Wheeler | 34 | 80\$ | 2,720\$ |

| | | | | |
|--------------------------------------|---------------------|----|------|--------|
| F105 Menu management | Owen Balnaves-James | 39 | 80\$ | 3120\$ |
| F106: Order management | Phuc Duong | 28 | 80\$ | 2240\$ |
| F109: event management | Owen.Balnaves-James | 41 | 80\$ | 3280\$ |
| f108: Order statistics | Sanghyeon Park | 32 | \$80 | 2640\$ |
| F107: Add / update / view menu deals | Oliver Wheeler | 34 | \$80 | \$2720 |
| F110: Table Management | Sanghyeon Park | 32 | \$80 | 2880\$ |

3. Updated Solution Architecture

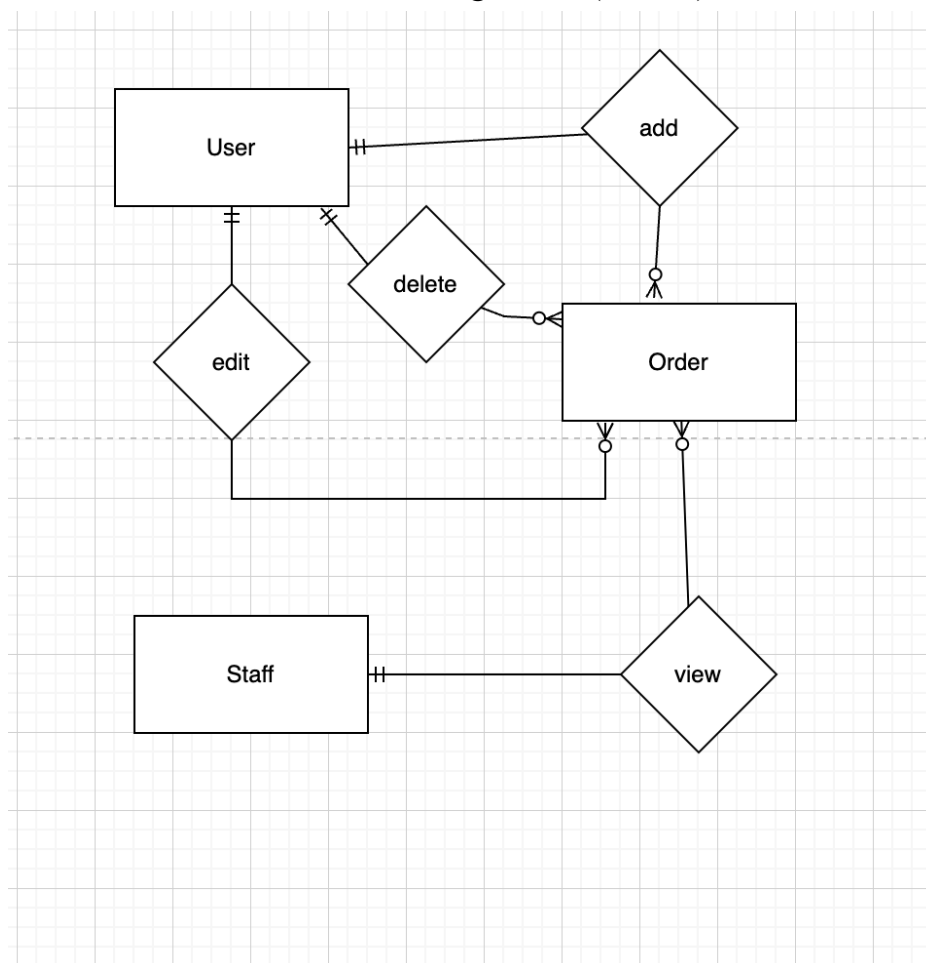
3.1. Overall project architecture model



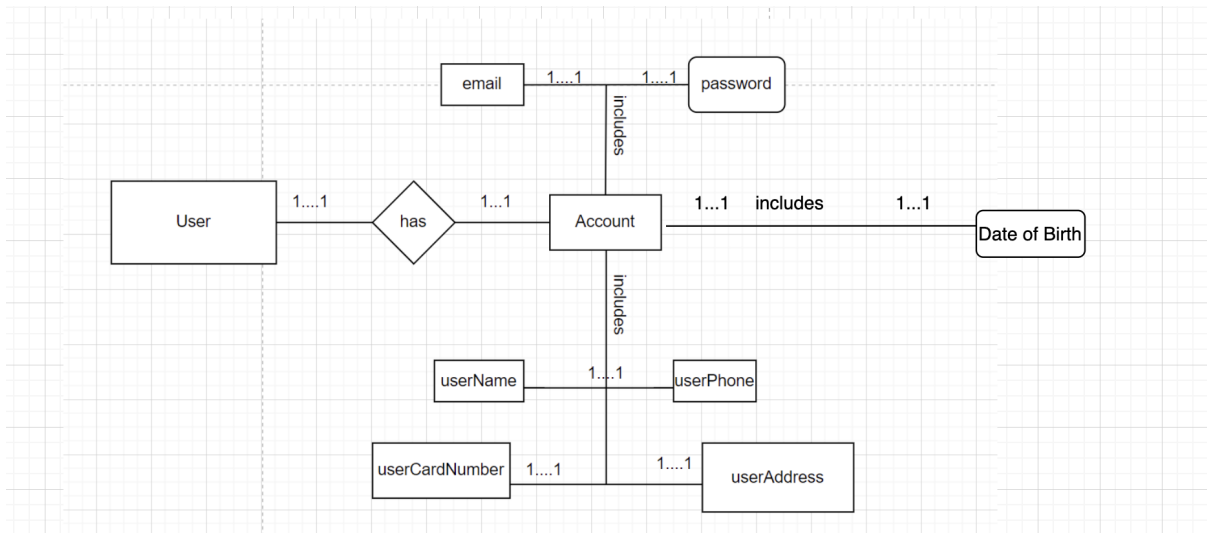
3.2. Models for individual user features

The list of models below is only for this Release (R2). Any updates (if exist) have been noted right below each diagram.

Feature 101: Reservation management (Oliver)

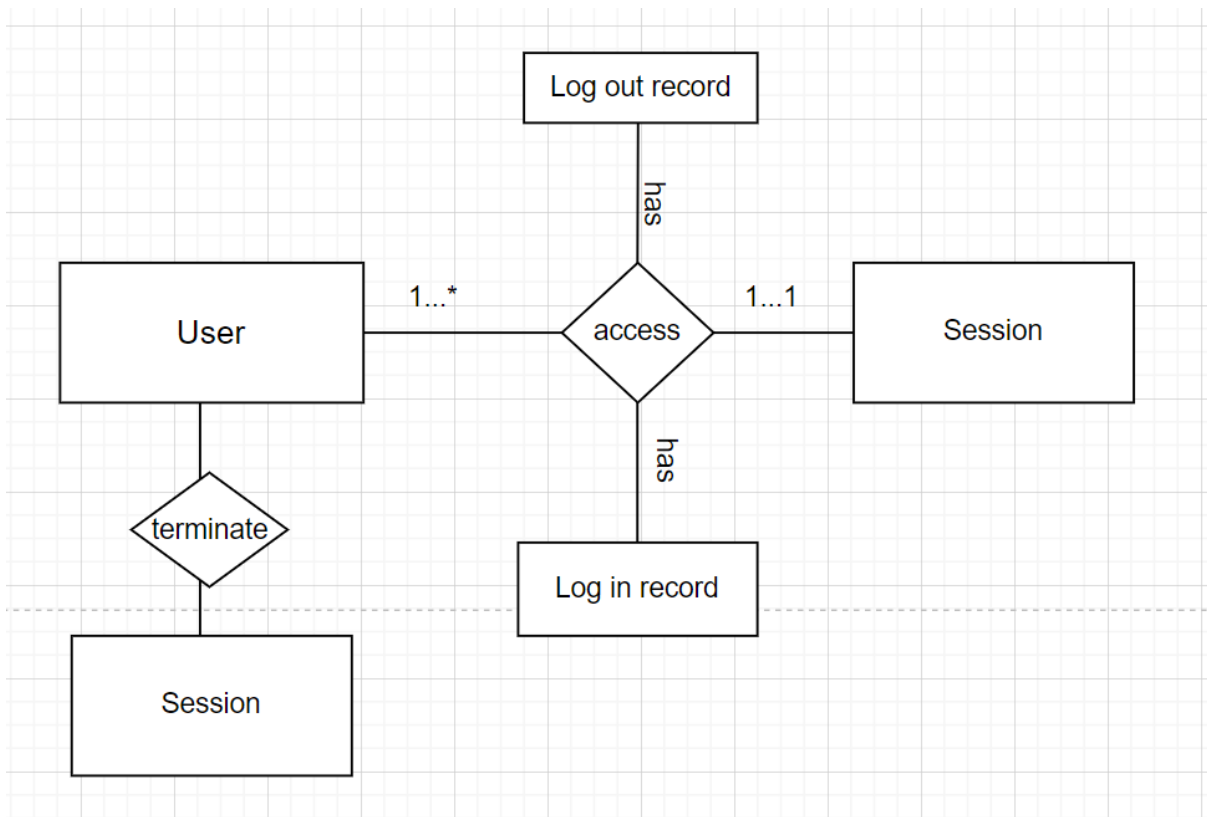


Feature 102: Account management (Lam Tran)



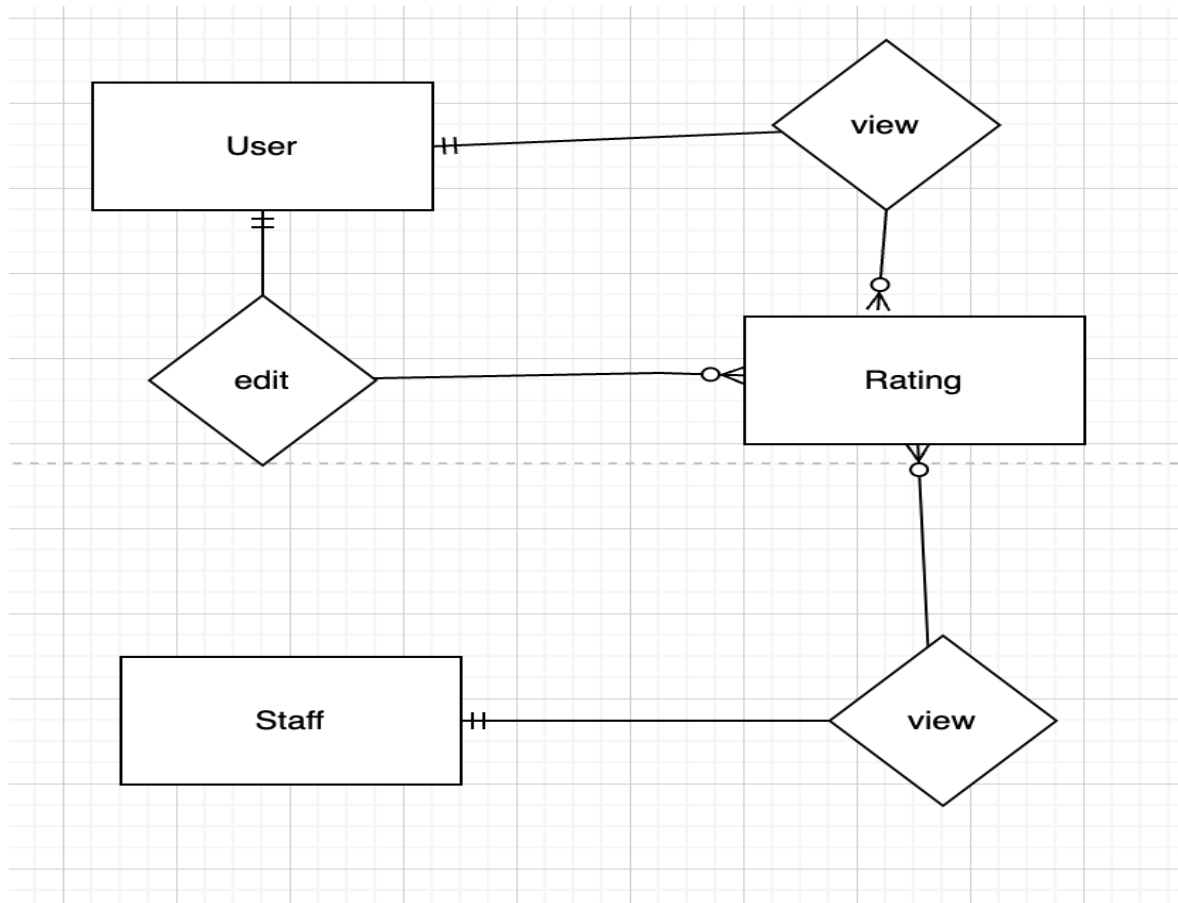
Changes: Added DOB of the account.

F103: Login / Log out (Lam Tran)

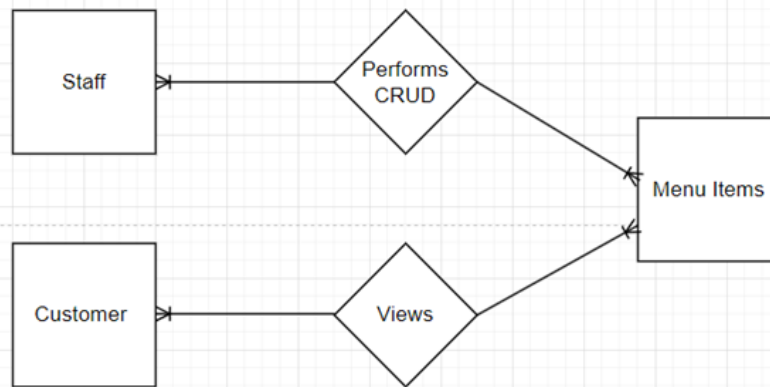
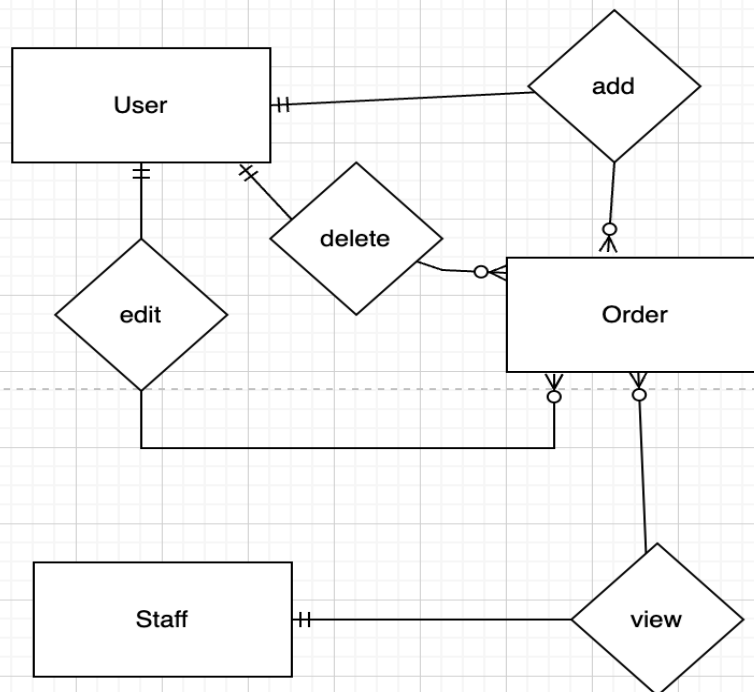


The diagram stays unchanged

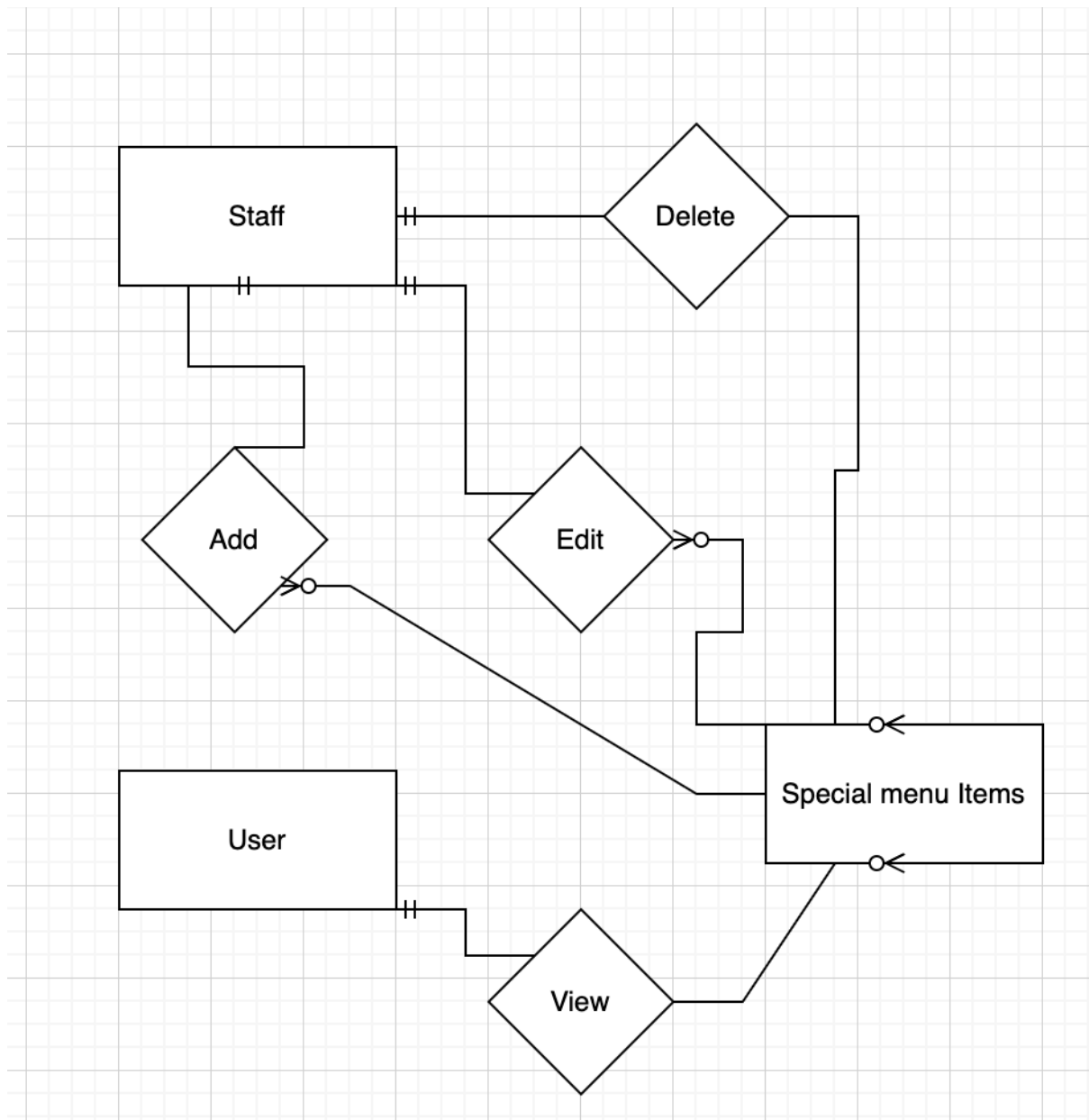
F104: Submit a rating (Minh Phuc Duong)



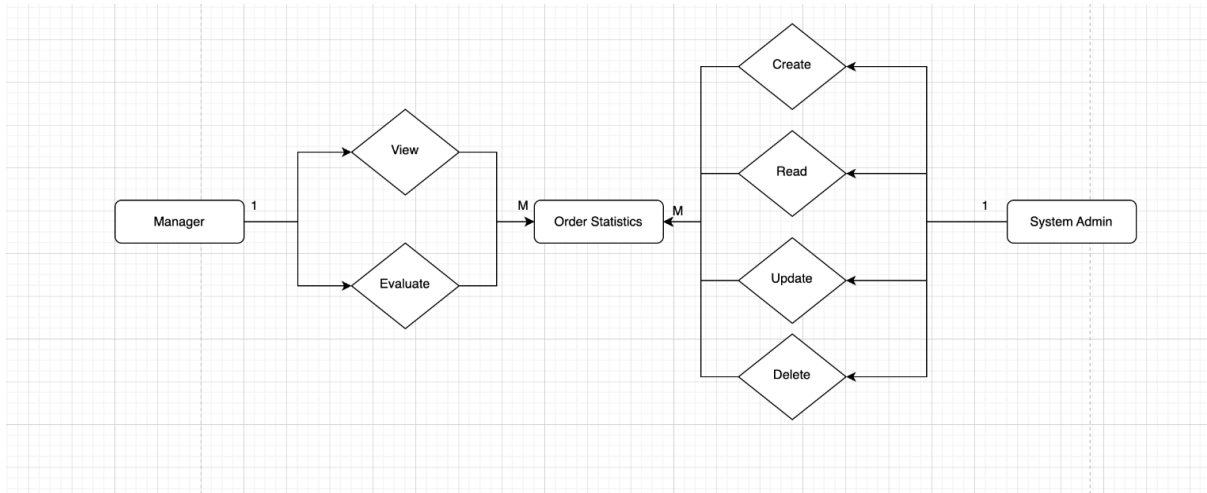
F105 diagram: Add / edit / delete menu items (Owen)

Data model for F105**F106: Food order management (Minh Phuc Duong)**

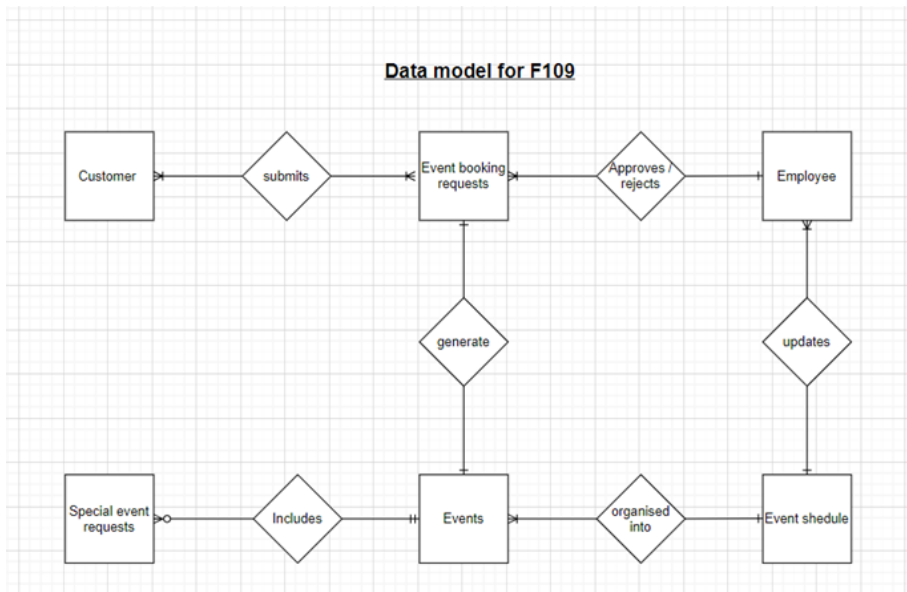
F107: Specials Item Menu (Oliver)



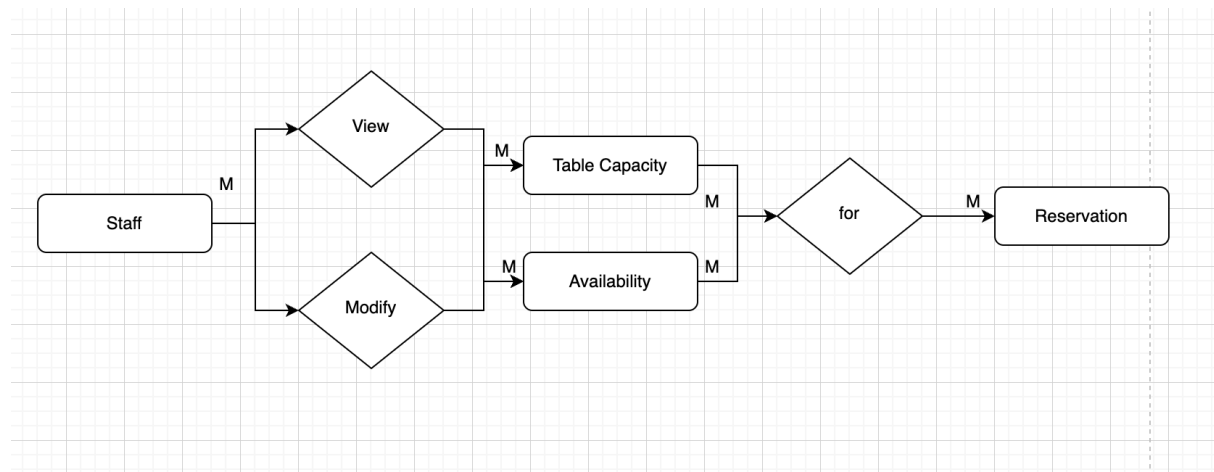
F108 View order statistics (Sanghyeon)



F109 Add/ Update Special Events: (Owen)

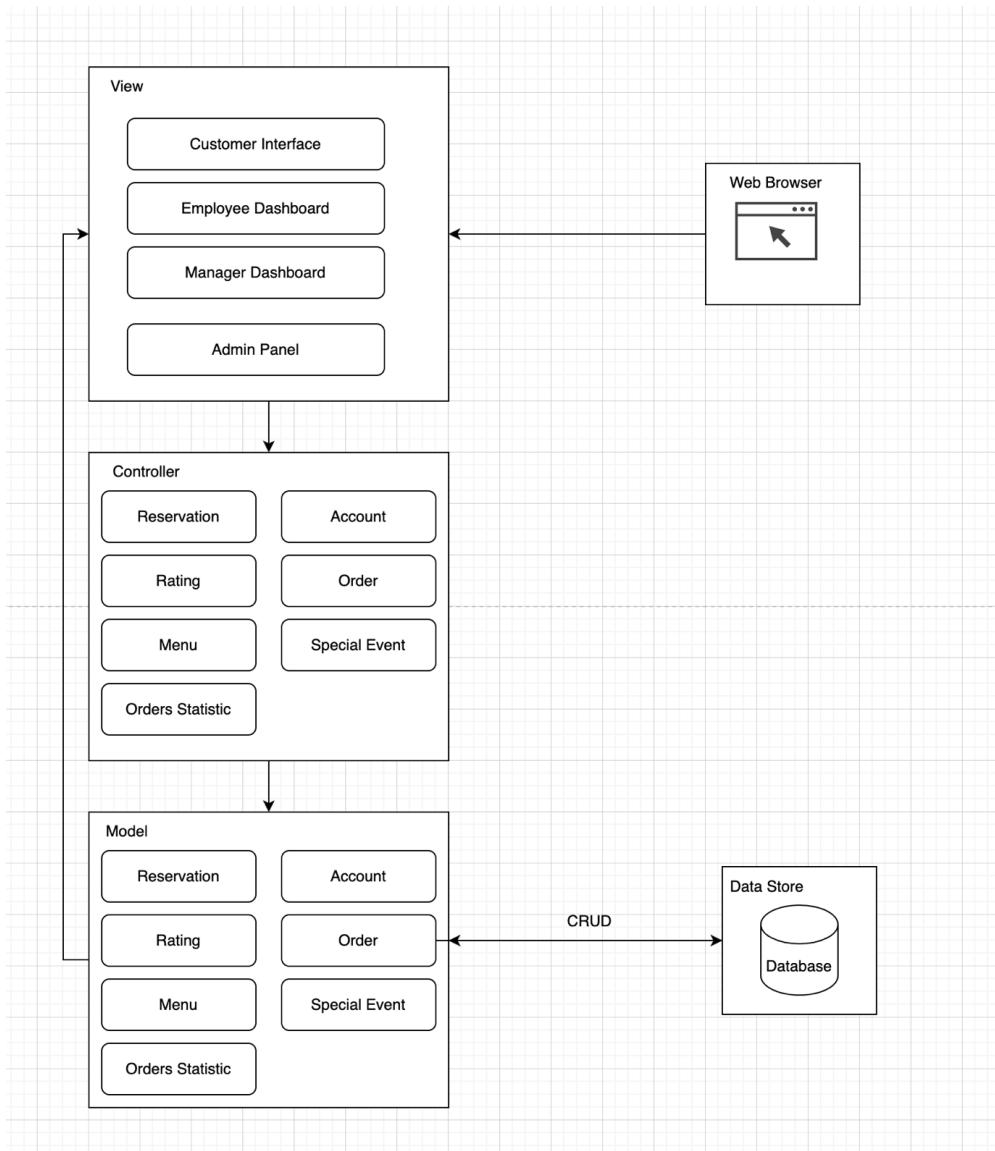


F110 Table Management (Sanghyeon)



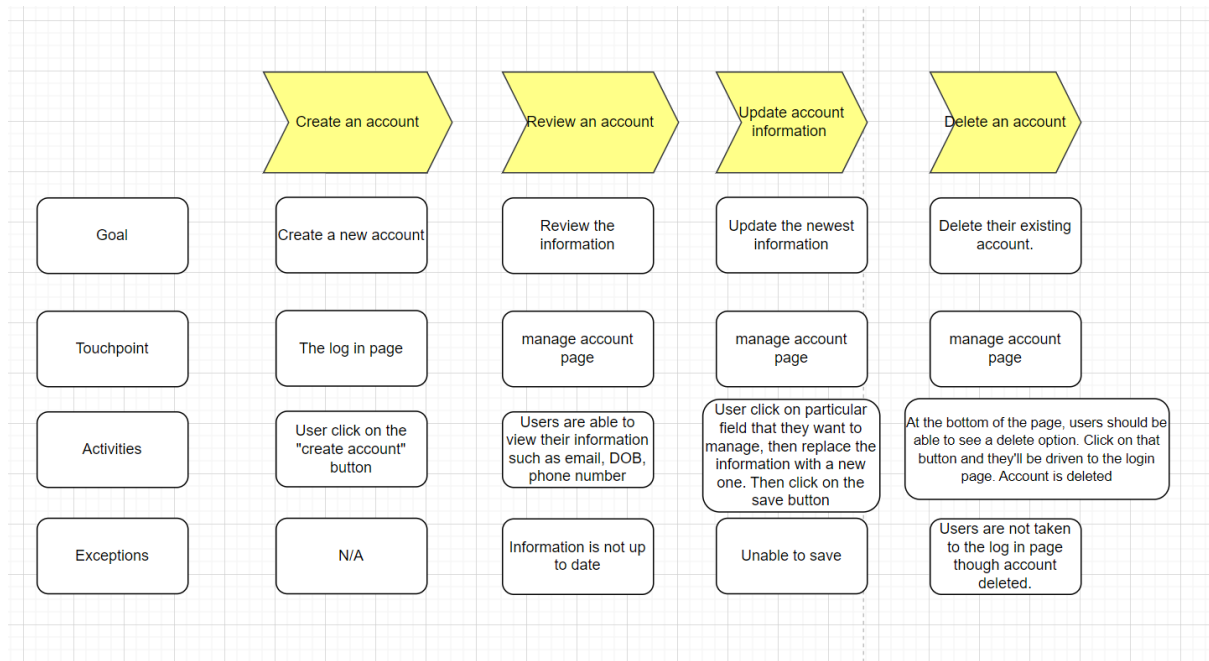
3.4 Application Architecture model

Overall Project Architecture Model

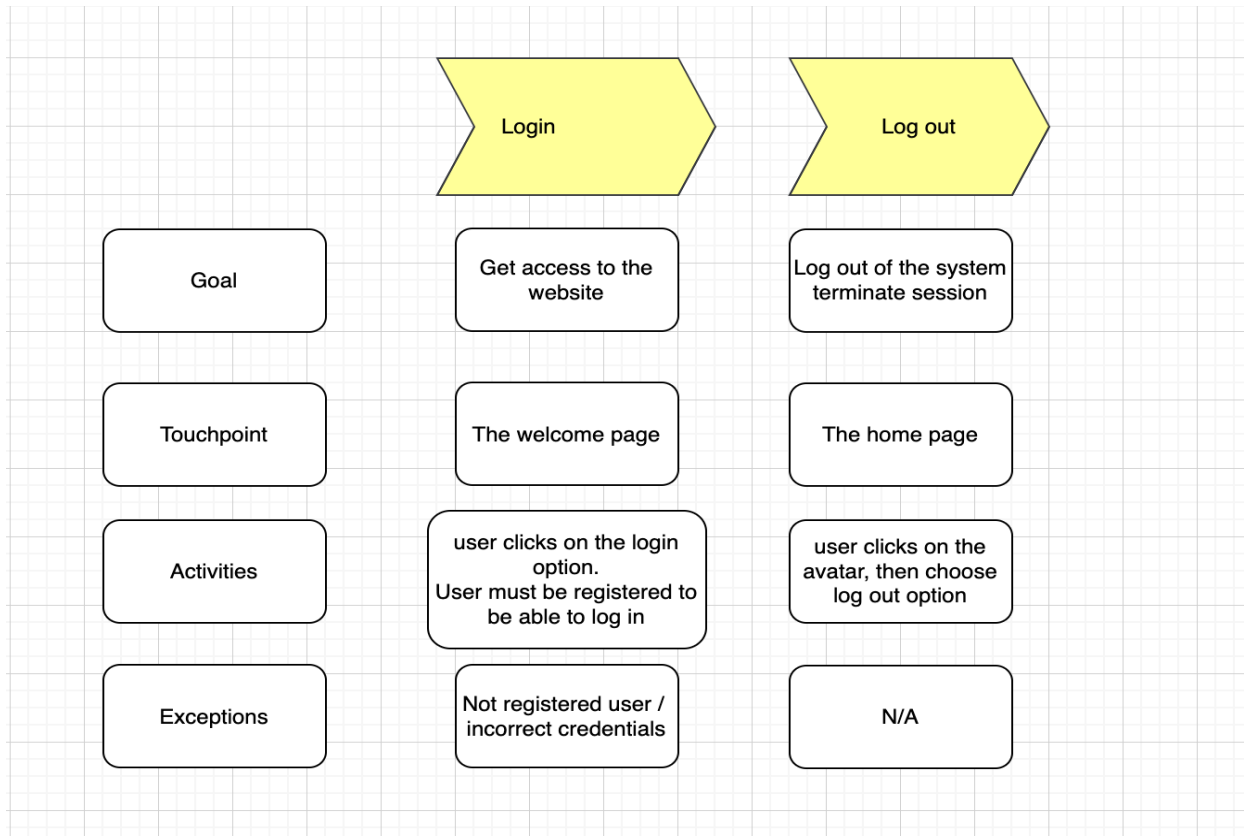


4. Updated Solution Design

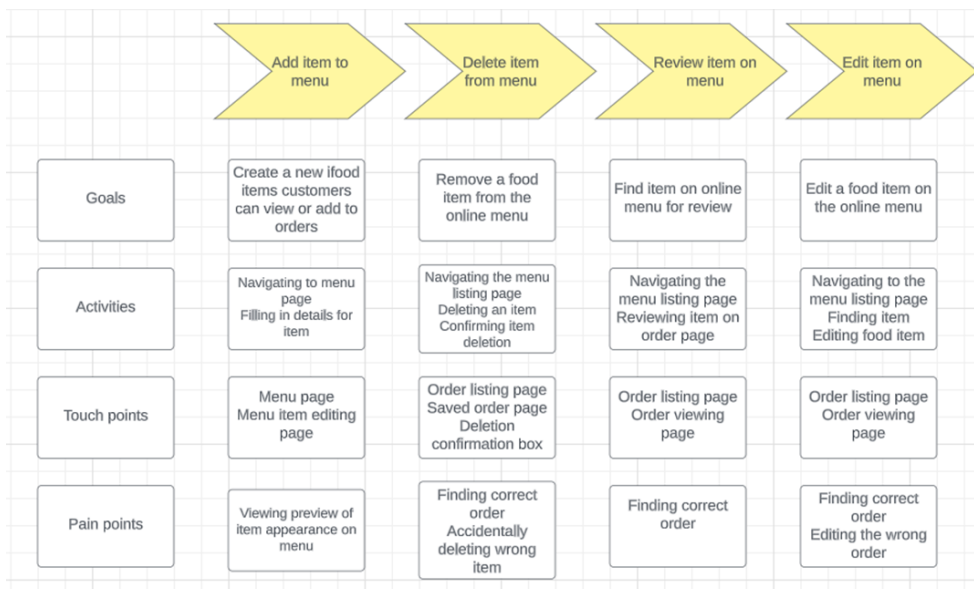
Feature 102: Account management



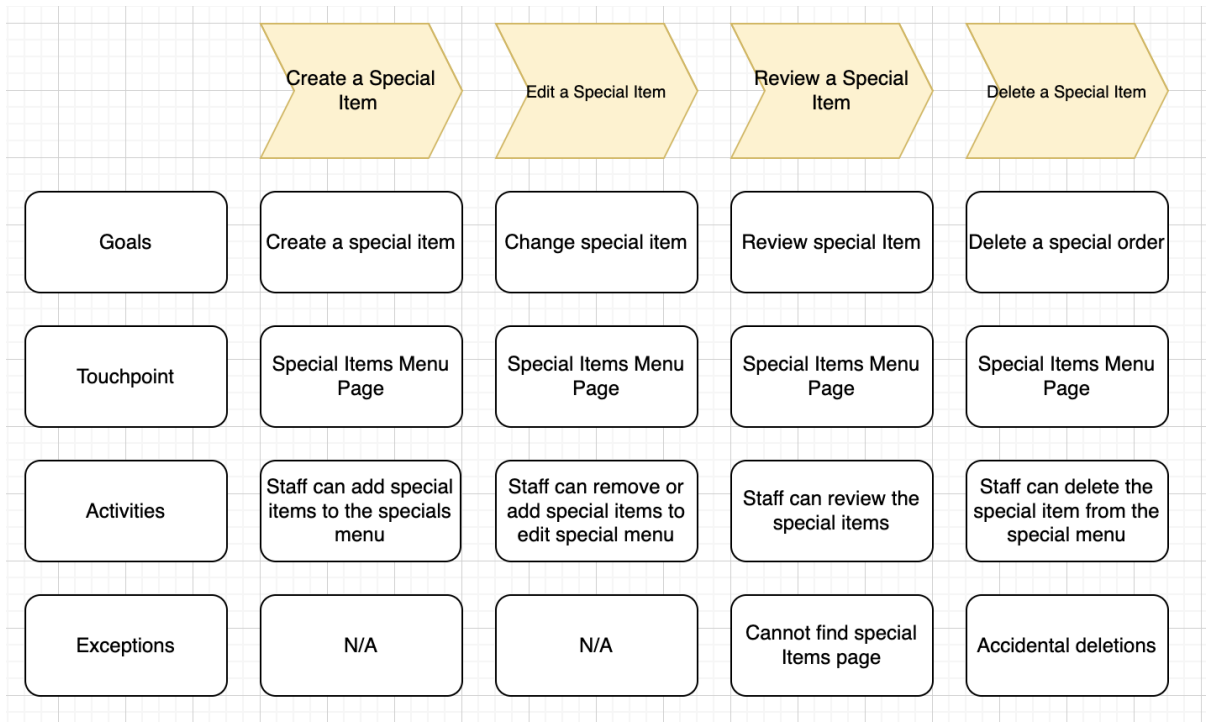
Feature 103: Log in / Log out



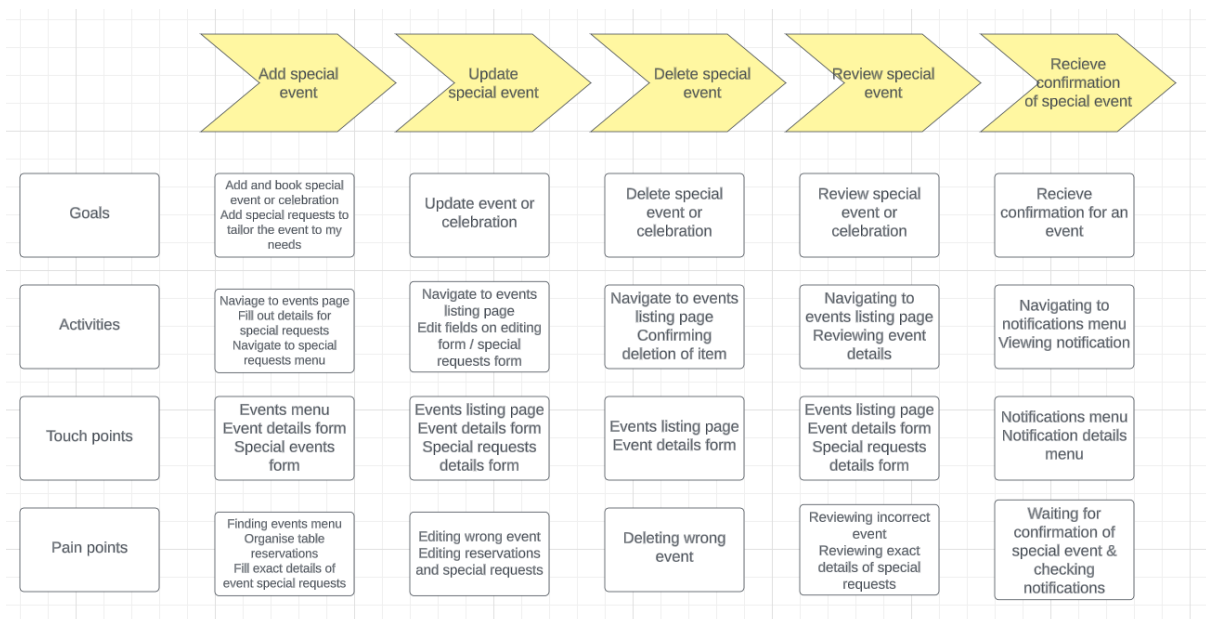
F105 Updated customer journey map:



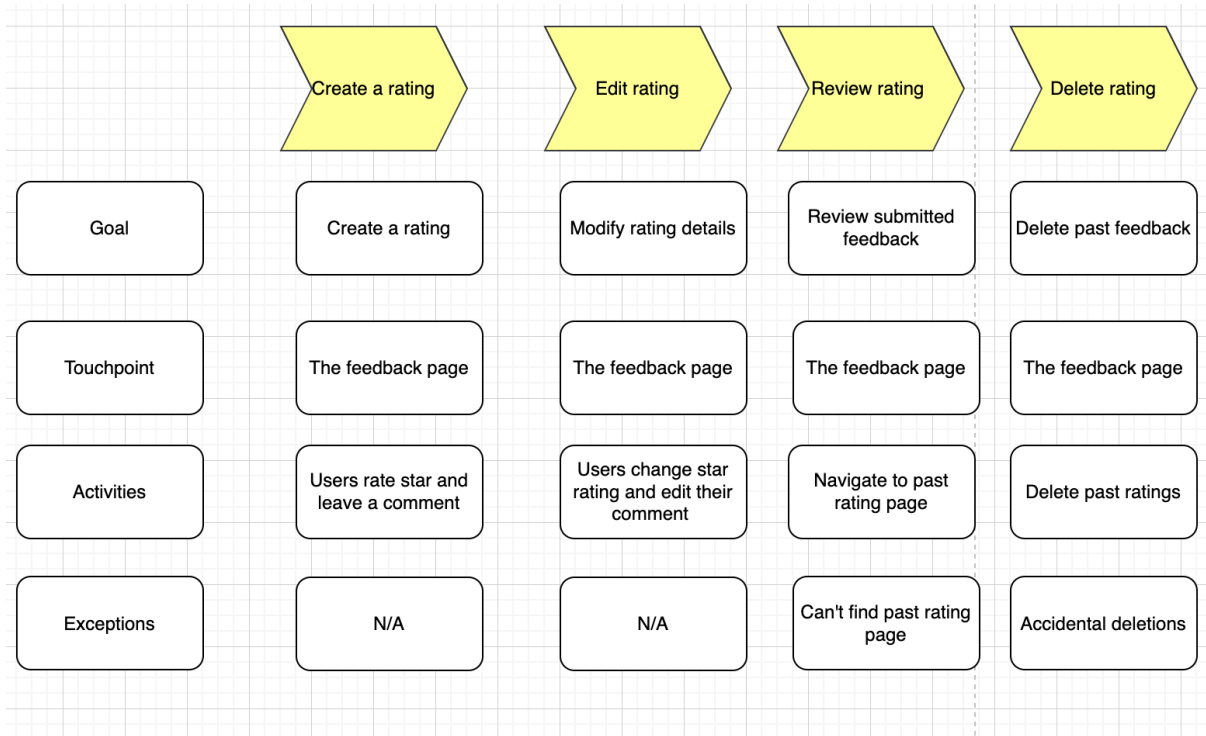
F107: Add, edit, delete special menu items.



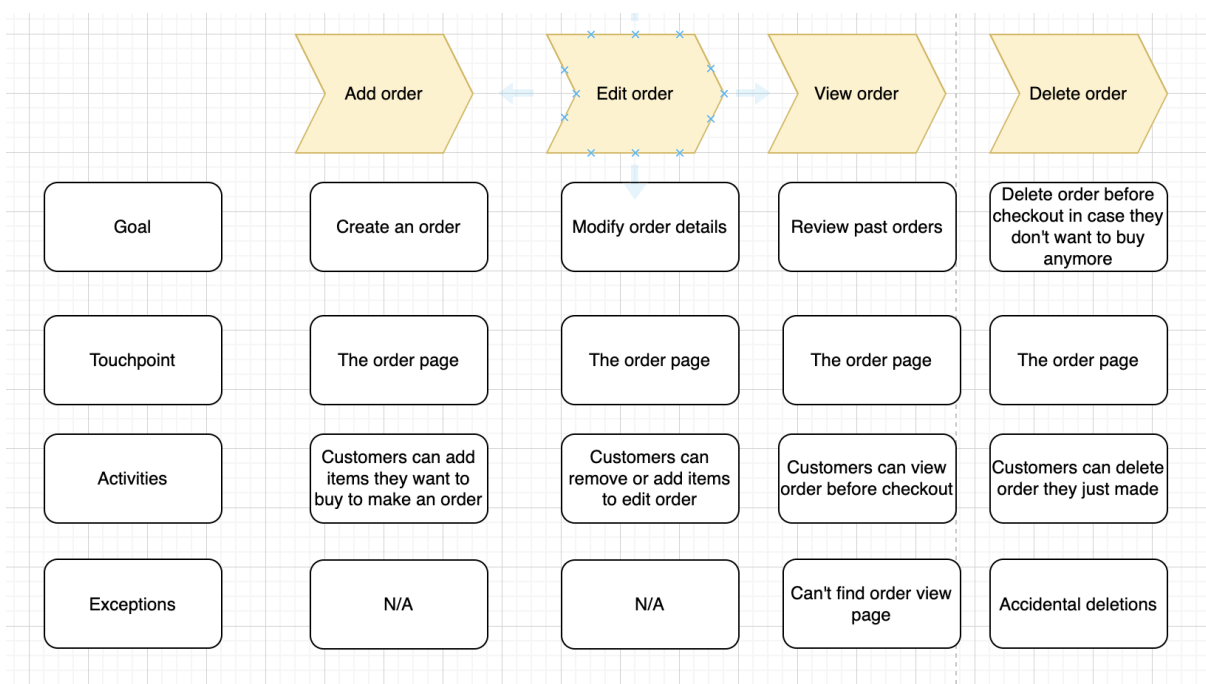
F109 Updated customer journey map:



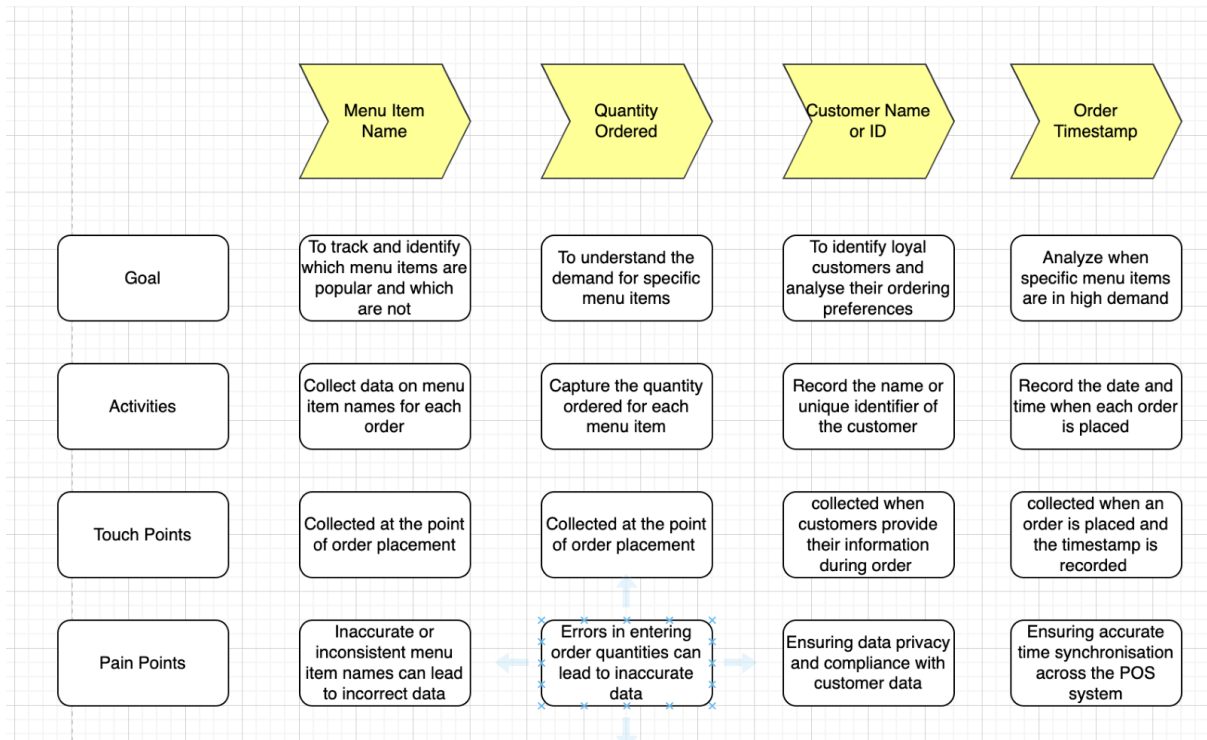
F104



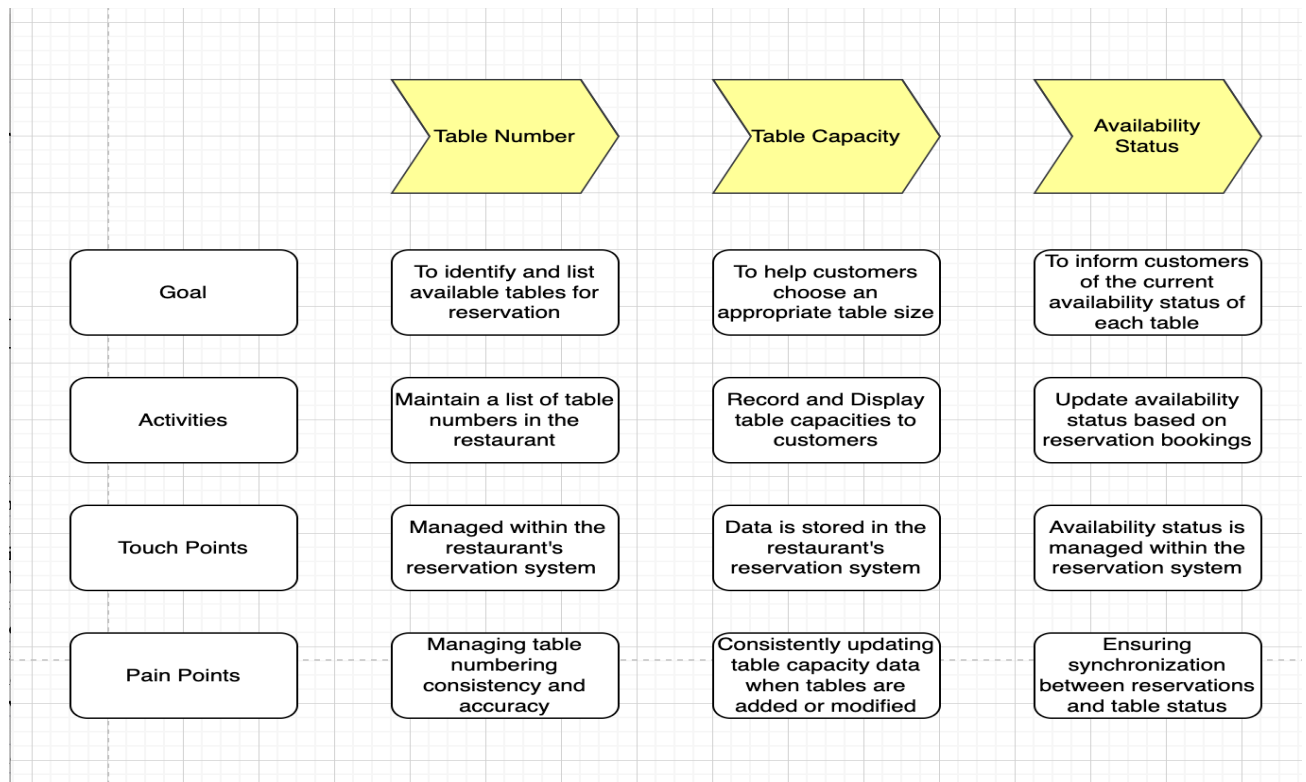
F106: Modified customer journey map



F-108 View Order statistics



F-110 View availability of tables



5. Continuous Deployment Design

We have set up Continuous Deployment using Heroku.

This is the link to our product: [Group 8 Product](#)

The picture below shows the activity deployment log for our project. Anytime a member pushes new changes to Github, Heroku will automatically deploy.

Personal > asd-assignment3-deploy ☆ Open app More

GitHub lamtranhoang08/ASD-Assignment3 master

Overview Resources Deploy Metrics Activity Access Settings

Activity Feed

- lamtiensinh2301@gmail.com: Deployed 33027cd8
Today at 10:29 AM · v6 · [Compare diff](#)
- lamtiensinh2301@gmail.com: Build succeeded
Today at 10:28 AM · [View build log](#)
- lamtiensinh2301@gmail.com: Deployed 3b8492c5
Yesterday at 11:31 PM · v5 · [Roll back to here](#) · [Compare diff](#)
- lamtiensinh2301@gmail.com: Build succeeded
Yesterday at 11:31 PM · [View build log](#)
- lamtiensinh2301@gmail.com: Deployed 32201d76
Yesterday at 11:08 PM · v4 · [Roll back to here](#) · [Compare diff](#)
- lamtiensinh2301@gmail.com: Build succeeded
Yesterday at 11:07 PM · [View build log](#)
- lamtiensinh2301@gmail.com: Deployed 13204894
Yesterday at 11:03 PM · v3 · [Roll back to here](#)
- lamtiensinh2301@gmail.com: Build succeeded
Yesterday at 11:03 PM · [View build log](#)
- lamtiensinh2301@gmail.com: Enable Logplex
Yesterday at 11:00 PM · v2 · [Roll back to here](#)

The picture below shows CD automatic deployment set up.

Deployment method

Heroku Git
Use Heroku CLI
 GitHub
Connected
 Container Registry
Use Heroku CLI

App connected to GitHub

Code diffs, manual and auto deploys are available for this app.

Connected to lamtranhoang08/ASD-Assignment3 by lamtranhoang08 [Disconnect...](#)

- Releases in the [activity feed](#) link to GitHub to view commit diffs
- Automatically deploys from master

Automatic deploys

Enables a chosen branch to be automatically deployed to this app.

You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#).

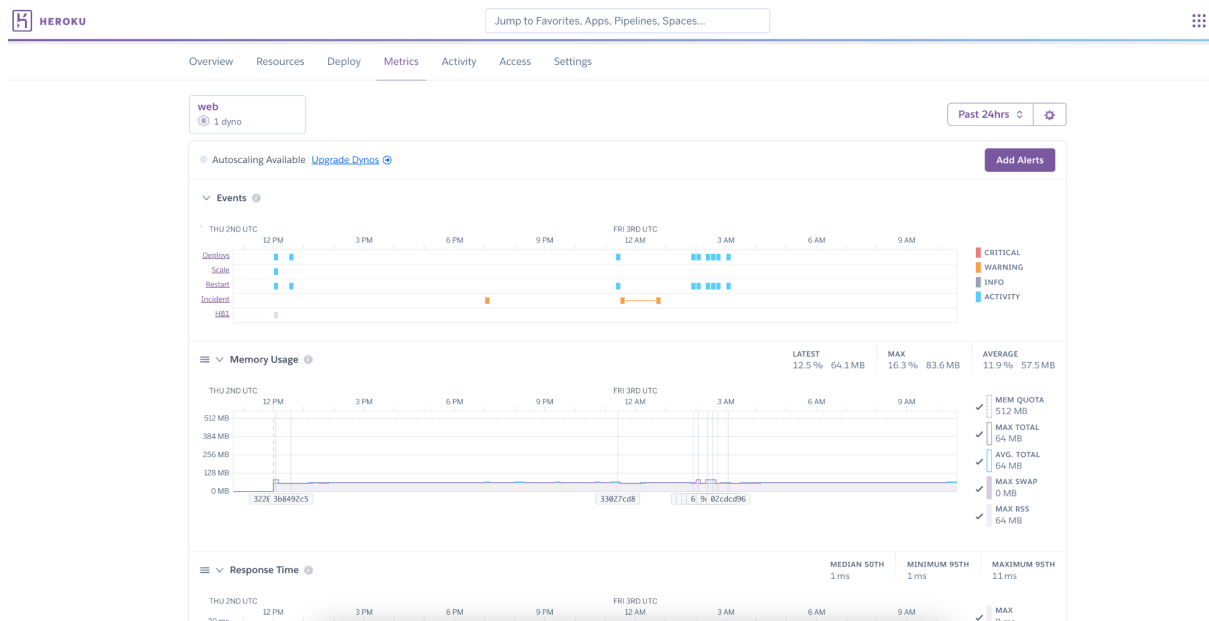
Automatic deploys from master are enabled

Every push to master will deploy a new version of this app. **Deploys happen automatically:** be sure that this branch in GitHub is always in a deployable state and any tests have passed before you push. [Learn more](#).

☐ Wait for CI to pass before deploy
Only enable this option if you have a Continuous Integration service configured on your repo.

[Disable Automatic Deploys](#)

A quick look at our project metric



6. Github Repository

This is the link for our project repository: [Github](#)

Due to some errors in committing and pulling changes to Github, we have created a new repository in order to solve this problem. This is the new repo of our project [New Github repo](#).

The README.md shows how team members contributed to the project, as well as instructions to run the project.

A PHP readme instructs users how to run the PHP pages in the project.

Improvements in code from release 1:

- Performed unit testing on code to search for and fix bugs
- Improved the appearance of the website, including background and feel of user interaction
- Integrated code from PHP & MySQL and javascript & MongoDB
- Consider all security requirements
- Changes made to enhance user interface

7. Individual contribution logbooks

Owen

| Date | Hours | Task |
|------|-------|------|
|------|-------|------|

| | | |
|------------|---|---|
| 1/10/2023 | 2 | Started work on events management |
| 2/10/2023 | 3 | Fixed some bugs for events management page |
| 5/10/2023 | 2 | Added events & special requests for events to database |
| 10/10/2023 | 4 | Fixed more bugs and started work on special requests page |
| 15/10/2023 | 3 | Worked on report |
| 17/10/2023 | 1 | Worked on report |
| 31/10/2023 | 5 | Finished events booking page |
| 1/11/2023 | 5 | Worked on report & figured out how to use foreign keys and access foreign key references for the events & eventSpecialRequest objects |
| 2/11/2023 | 5 | Fixed bugs in deleting and editing items, made changes to event special requests visible on update events page |
| 3/11/2023 | 4 | Finished work on report & finished and submitted code, fixed final bugs |

Phuc

| Date | Hours | Tasks |
|------------|-------|---|
| 19/08/2023 | 4 | Worked on the project report |
| | | Worked on the report |
| | | Worked on the report |
| 22/08/2023 | 2 | Coded the rate submitting feature |
| 23/08/2023 | 2 | Worked on coding |
| 23/08/2023 | 4 | Worked on CDE food order coding |
| | | Cleaned up code (combined add/edit/delete into single Servlet) |
| 23/08/2023 | 2 | Complete field validations |
| 25/08/2023 | 2 | More cleaning up code, separating methods into Models & Controllers |
| 26/08/2023 | 2 | Implemented PBKDF2WithHmacSHA1 algorithm encryption on password |
| 01/09/2023 | 4 | Email implementation |

| | | |
|------------|---|---|
| 10/09/2023 | 5 | Working on order management |
| 15/09/2023 | 6 | Working on and debugging code |
| 20/09/2023 | 4 | Added code for performing CRUD operations on order management |
| 26/09/2023 | 6 | Started working on the report |
| 1/10/2023 | 7 | Updated all the diagrams, user stories |
| 5/10/2023 | 4 | Tried to do unit testing, pipeline things |
| 10/10/2023 | 5 | Made code clear |
| 15/10/2023 | 5 | Re design the layout page for features |
| 22/10/2023 | 6 | Tried to implement the security part |
| 1/11/2023 | 5 | Finished off |

Lam

| Date | Hours | Task |
|------------|-------|---|
| 16/10/2023 | 2 | Learn to improve the system performance |
| 18/10/2023 | 2 | Start improve the login / logout page appearance |
| 20/10/2023 | 5 | Code the emailing feature |
| 23/10/2023 | 5 | Code the emailing feature Update the report |
| 24/10/2023 | 3 | Design a new appearance for the account page |
| 25/10/2023 | 3 | Continue on coding Check progress of the project |
| 26/10/2023 | 7 | Worked on the report Check the progress Push everyone to work on their feature |
| 1/11/2023 | 3 | Preview code Preview tests |
| 2/11/2023 | 4 | Debug some parts of the code Preview appearance Preview functionalities. Prepare for the preview |

Oliver

| Date | Hours | Task |
|------|-------|------|
|------|-------|------|

| | | |
|------------|---|---|
| 11/09/2023 | 2 | Started code for special menu page |
| 12/09/2023 | 2 | Setup user stories on google doc |
| 15/09/2023 | 2 | Implemented user stories onto azure board. |
| 18/09/2023 | 3 | Worked on html code for special menu page |
| 20/09/2023 | 2 | Edited user stories |
| 22/09/2023 | 3 | Worked on conceptual data model diagram |
| 28/09/2023 | 1 | Debugged Code |
| 29/09/2023 | 1 | Debugged Code |
| 02/10/2023 | 3 | Finalising user stories. |
| 03/10/2023 | 2 | Editing javascript code for special items menu |
| 05/10/2023 | 3 | Worked on google doc, editing to clean up |
| 09/09/2023 | 1 | Debugged Code |
| 11/09/2023 | 2 | Finalising Code |
| 13/10/2023 | 3 | Finished all tasks for Release 1. Reviewing all parts. |
| 17/10/2023 | 4 | Started code for Release 2. |
| 20/10/2023 | 3 | Edited google doc for Release 2. |
| 24/10/2023 | 2 | Started editing code |
| 28/10/2023 | 4 | Finished bug fixes in code. Finished editing google docs. |
| 1/11/2023 | 4 | Finished all tasks for Release 2. Reviewing all parts |

Sanghyeon Park

| Date | Hours | Task |
|------------|-------|--|
| 19/08/2023 | 2 | Worked on the user stories Developed key features |
| 20/08/2023 | 2 | Database setup and servlet integration |

| | | |
|------------|---|---|
| 23/08/2023 | 2 | Functional and non-functional requirements |
| 30/08/2023 | 3 | Integrated MS Teams and Github to Azure Dev Ops |
| 31/08/2023 | 2 | Worked on interaction design, application and data model diagrams |
| 01/09/2023 | 2 | Modified user stories |
| 06/09/2023 | 4 | Working on code |
| 14/09/2023 | 4 | Acceptance Testing & Unit Testing |
| 17/09/2023 | 4 | Making example database |
| 20/09/2023 | 3 | Added code and interface for viewing order statistics |
| 23/09/2023 | 2 | Added code for correct data display |
| 25/09/2023 | 2 | Test Performance: Evaluate the system's performance |
| 27/09/2023 | 1 | Started work on making chart |
| 8/10/2023 | 4 | Start coding for validation |
| 10/10/2023 | 3 | Continued work on automated testing |
| 11/10/2023 | 1 | Added js code for testing DB |
| 12/10/2023 | 2 | Continued work on menu items statistics display |
| 17/10/2023 | 4 | Started code for Release 2 |
| 20/10/2023 | 3 | Gather information for Release 2 |
| 26/10/2023 | 7 | Worked on the report Check the progress work on their feature |
| 1/11/2023 | 3 | Preview code Preview tests Check compatibility with other feature |
| 2/11/2023 | 4 | Debug some parts of the code Preview appearance Preview functionalities. Prepare for the preview |