# WOMPOM PIZZA CASE STUDY

# Team 4

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#### **Executive Summary**

Wompom Pizza is facing lack of exponential growth even after being popular for years. We understand that this could be due to reasons like conventional ordering system, manual billing, reporting methods and poor communication between employees. Due to fear of losing tradition, you have been skeptical about bringing innovation. We understand your concerns and, as a team, believe in upholding traditions while constantly innovating.

Aforementioned circumstances have led to company's stagnant revenue over the past decade. After thorough research, alternatives that can be considered include re-staffing, using off the shelf software, outsourcing to offshore company or contracting a local firm.

Choosing re-staffing can be a good option as it will retain traditions but may not guarantee exponential growth and efficiency. Alternatively, we can use a "ready made" software which may be reliable, proven and affordable. However, it might be inflexible and difficult to customize according to Wompom Pizza's core values. If we go by the option of outsourcing to offshore firm, there is scope of customization but controlling certain aspect will be difficult like budgeting and culture. Lastly, we can consider contracting local firm to develop a software from scratch. It will allow us to personalize the software via effortless communication and easy feedback incorporation. But this will require your continuous involvement.

With your requirements, we believe that contracting a local firm would be your best bet. If you choose our firm, we promise to deliver a system that connects with your legacy, streamlines the internal processes, gives you an online presence and automates billing & reporting without overshooting the budget. Moreover, previously we have delivered a system to XYZ Company with similar requirements which significantly boosted their revenue.

#### **Team bios**

**Rhex** (Manager/architect): Rhex is responsible for overseeing all the administrative activities that facilitate smooth development of project. She has good decision making capabilities and is known for reducing risk significantly by adhering to a policy of open communication. She actively participated in planning, defining scope, resource planning, time estimation and cost estimation of major projects in the past.

**Poo Cho** (UI developer): Poo Cho has worked on implementation of visual elements for websites so that users can see and interact with them. She has worked on translating wireframes and requirements into functional pages with front end technologies like HTML, CSS, jQuery and Javascript for over 5 years.

**Gun Sha** (Core developer): Gun Sha is an experienced code developer, who has previously worked on implementation and enhancement of technical requirements in production environment. Her extensive understanding of programming languages like JAVA, C++ and Python has led the team to successfully deliver stable systems.

**Naresh Choudhary** (Tester): Nar Cho has an experience of 8 years in testing of softwares under different conditions and environments such as UI testing, functional testing, manual testing and automation testing. He has expertise in Selenium and Tosca Testsuite tools. His skills with testing have helped the team create bug free applications.

## **Requirement Definition**

#### **Functional Requirement:**

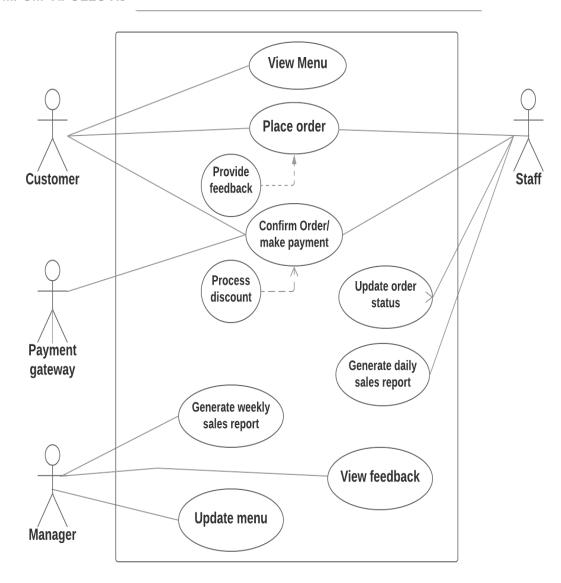
- 1. Customer can view menu, place order and customize them via website and call.
- 2. Customer can apply discount and pay via multiple payment method like Credit/Debit card, internet banking and cash on delivery.
- 3. Customer can provide feedback.
- 4. Manager can view feedback provided by customer.
- 5. Pommer can record new order in system for both walk-ins and over phone.
- 6. Pommer can send order/cooksheet to wommer electronically.
- 7. Wommer can notify dommer for delivery of pizza and pommer in case of walk in, once the order is prepared.
- 8. Pommer can generate daily sales report. Manager can generate weekly sales report.
- 9. Manager can update menu.

#### **Non-functional Requirement:**

- 1. System should be easy to access for users and stakeholders.
- 2. User should be trained to use new system.
- 3. Reminders should be sent to dommers every 2 minutes if delivery is not acknowledged by them.
- 4. System should be compatible on Windows, macOS and other platforms.
- 5. System performance should be good with low response time, data integrity and easy navigation.
- 6. System should back up data on weekly basis.
- 7. Customer, staff and manager should have their corresponding access.
- 8. System should store basic customer details and maintain a database.
- 9. System should automate billing process by calculating the final amount, which should include tax, discounts and delivery charge.

## **Use Case Diagram**

#### WOMPOM- APOLLO X5



# **Use Case Descriptions**

| Use Case Name: View         | v menu   |   | ID: 1.1            |
|-----------------------------|----------|---|--------------------|
| <b>Description:</b> Custome | er can v | iew menu through website                            |                    |
| Actors: Customer            |          |   |                    |
| Pre conditions: Custo       | mer op   | ens www.wompompizza.com                             |                    |
| Post conditions: Cust       | omer c   | an proceed to order or cancel                       |                    |
| Flow of events:             | 1.       | Customer opens homepage of www.wompompizza.c        | om                 |
|                             | 2.       | Customer changes language option, language change   | es from English to |
|                             |          | Cheyenne or vice-versa.                             |                    |
|                             | 3.       | Customer clicks "Menu" and web page is redirected t | to Menu page.      |
| Alternate flows:            | •        |   |                    |

| Use Case Name: Place o         | rder  |   | <b>ID:</b> 1.2   |
|--------------------------------|-------|---|------------------|
| <b>Description:</b> Customer/S | Staff | can place the order on Wompom pizza's website or vi   | a call           |
| Actors: Customer, Staff        |       |   |                  |
| Pre conditions: Custome        | er ha | s viewed the menu                                     |                  |
| Post conditions: Custom        | er/S  | Staff has added the items to food cart                |                  |
| Flow of events:                | 1.    | Customer/Staff clicks "order now".                    |                  |
|                                | 2.    | Customer/Staff selects the pizza and quantity.        |                  |
|                                | 3.    | Customer/Staff can add appetizers and beverages.      |                  |
|                                | 4.    | Customer/Staff reviews the order and if there are any | y changes in the |
|                                |       | order, go to alternative 3a.                          |                  |
|                                | 5.    | Customer/Staff places the order                       |                  |
| Alternate                      | 3(a   | ). Repeat steps 1-3                                   |                  |
| flows:                         |       |   |                  |

| Use Case Name: Cor         | nfirm or  | der   | <b>ID:</b> 1.3         |
|----------------------------|-----------|---|------------------------|
| <b>Description:</b> Custom | er provi  | des billing information, makes payment and gets orde    | r confirmation receipt |
| Actors: Customer, St       | taff      |   |                        |
| Pre conditions: Cust       | omer ha   | s added items to food cart                              |                        |
| Post conditions: Ord       | der is co | nfirmed   |                        |
| Flow of events:            | 1.        | Customer/Staff inputs customer's name, customer's       | address and            |
|                            |           | customer's contact number.                              |                        |
|                            | 2.        | If new/loyalty customer, go to 2(a).                    |                        |
|                            | 3.        | Customer selects mode of payment and pays. If the p     | payment fails, go to   |
|                            |           | 3(a).   |                        |
|                            | 4.        | Customer receives order confirmation receipt after s    | uccessful payment.     |
|                            | 5.        | Staff confirms payment mode from customer to conf       | irm the order.         |
|                            | 6.        | Customer can provide feedback.                          |                        |
| Alternate                  | 2(a       | ). Customer/Staff applies the discount coupon, if avail | able.                  |
| flows:                     |           |   |                        |
|                            | 3(a       | ). Customer can retry or choose an alternate payment    | : method.              |
|                            | 6(a       | ). Staff can input feedback on behalf of customer in ca | ase of walk-in.        |

| Use Case Name: Upd            | late ord | er status  | <b>ID:</b> 1.4        |
|-------------------------------|----------|--|-----------------------|
| <b>Description:</b> A notific | cation s | ystem to streamline the operations within the pizza pl   | ace                   |
| Actors: Staff ( pomme         | er, dom  | imer, wommer)  |                       |
| Pre conditions: Paym          | ent for  | the order has already been made  |                       |
| Post conditions: The          | order h  | as been delivered  |                       |
| Flow of events:               | 1.       | Pommer sends notification to wommer through syst   | tem when an order is  |
|                               |          | placed with the message: Ready to prepare.   |                       |
|                               | 2.       | Pommer gives the customary traditional shout out of simultaneously.  | f "nehaene"           |
|                               | 3.       | Wommer accepts order and changes the status to "F  | Preparing".           |
|                               | 4.       | Once the pizza is prepared, Wommer updates the or to "Prepared" and shouts "hestamevo" in the native                               |                       |
|                               | 5.       | If order is a walk-in then Pommer is notified by the state delivers to the customer and changes order status as                    | •                     |
|                               | 6.       | If order is to be delivered then Dommer is notified by collects the order and two receipts from Wommer are system as "Delivering". |                       |
|                               | 7.       | Once order is delivered and payment is collected froupdates order in system as "Delivered".  | m customer, dommer    |
| Alternate                     | 1(a      | ). If order is made via website, Wommer receives orde  | er with status as     |
| flows:                        | "Re      | eady to prepare"   |                       |
|                               | -        | <ol> <li>In case the dommer does not update status within 2<br/>sent again to the dommer.</li> </ol>                               | 2 minutes, a reminder |

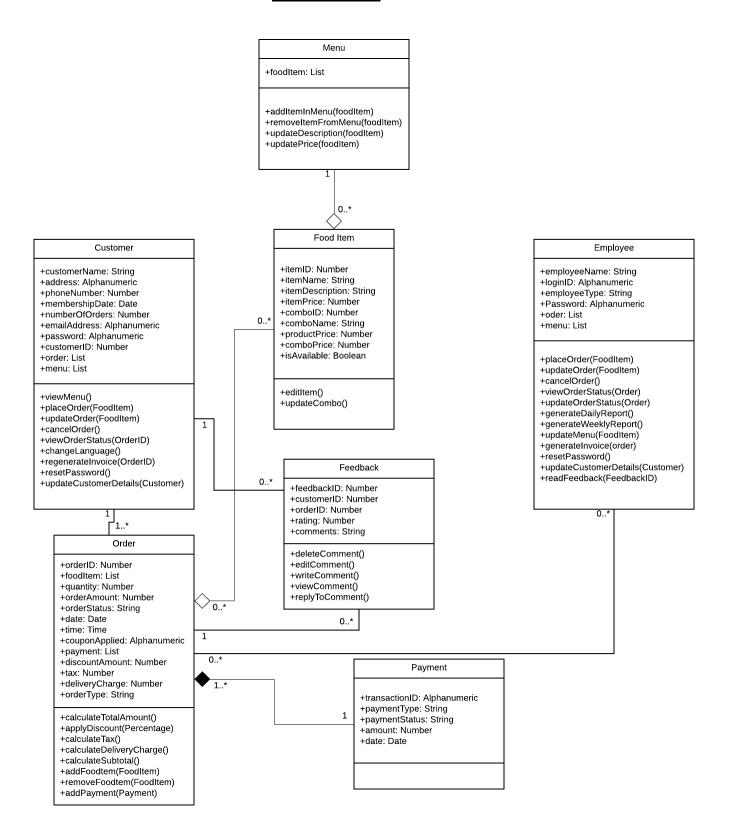
| Use Case Name: Gene          | erate E  | DD sales report  | <b>ID:</b> 1.5          |
|------------------------------|----------|--|-------------------------|
| <b>Description:</b> To gener | ate dai  | ly sales report for pommer to tally cash               |                         |
| Actors: Staff (Pommer        | r)       |  |                         |
| Pre conditions: The pi       | izza pla | ce has closed for the day                              |                         |
| Post conditions: The r       | eports   | for the day have been saved and updated into the s     | ystem for viewing       |
| Flow of events:              | 1.       | Staff selects "Generate daily report" from staff hom   | epage.                  |
|                              | 2.       | Report is generated with all details.                  |                         |
|                              | 3.       | Staff has options to "save to local drive", "email rep | port" or "view report". |
| Alternate flows:             |          |  |                         |

| Use Case Name: Ger          | nerate v | veekly sales report                       | <b>ID:</b> 1.6                 |
|-----------------------------|----------|---|--------------------------------|
| <b>Description:</b> To gene | erate we | ekly sales report                         |                                |
| Actors: Manager             |          |   |                                |
| Pre conditions: Daily       | , report | s have been prepared for the entire week  |                                |
| Post conditions: We         | ekly rep | ort has been generated and saved          |                                |
| Flow of events:             | 1.       | Manager selects "Generate weekly repor    | t" from staff homepage.        |
|                             | 2.       | Report is generated with all details.     |                                |
|                             | 3.       | Manager has options to "save report to lo | ocal drive", "email report" or |
|                             |          | "view report".                            |                                |
| Alternate flows:            |          |   |                                |

| Use Case Name: Upd          | late me   | nu  | <b>ID:</b> 1.7       |
|-----------------------------|-----------|---|----------------------|
| <b>Description:</b> To upda | te men    | u   |                      |
| Actors: Manager             |           |   |                      |
| Pre conditions: Mana        | ager is I | ogged in with his ID  |                      |
| Post conditions: Mer        | าน is su  | ccessfully updated  |                      |
| Flow of events:             | 1.        | Manager selects "Update menu" from staff homepage                           | ge.                  |
|                             | 2.        | Manager has options to remove item, add item, update and update item price. | ate item description |
|                             | 3.        | Manager clicks "Submit" to confirm the changes.                             |                      |
| Alternate flows:            | •         |   |                      |

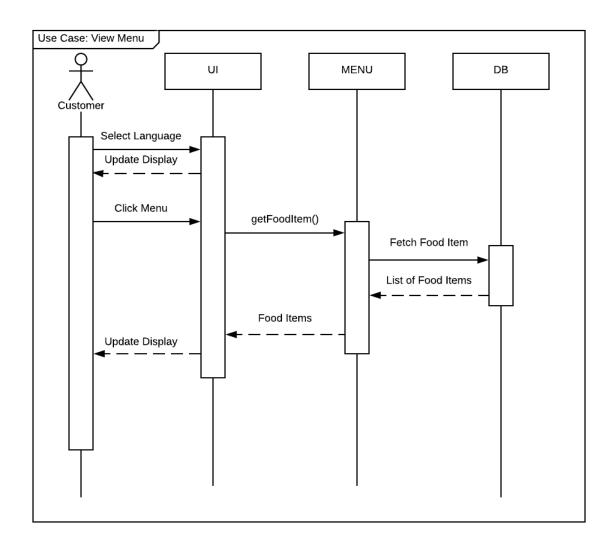
| Use Case Name: Vie          | w feedb   | ack                                       | <b>ID:</b> 1.8                |
|-----------------------------|-----------|---|-------------------------------|
| <b>Description:</b> To view | feedba    | ck provided by customers                  |                               |
| Actors: Manager             |           |   |                               |
| Pre conditions: Man         | ager is l | ogged in with his ID                      |                               |
| Post conditions: Ma         | nager h   | as acknowledged and processed the custom  | ner feedback                  |
| Flow of events:             | 1.        | Manager selects "View feedback" from sta  | aff homepage.                 |
|                             | 2.        | Manager has options to delete feedback, i | mark it as "read" or reply to |
|                             |           | feedback via email.                       |                               |
| Alternate flows:            |           |   |                               |

#### **Class Diagram**

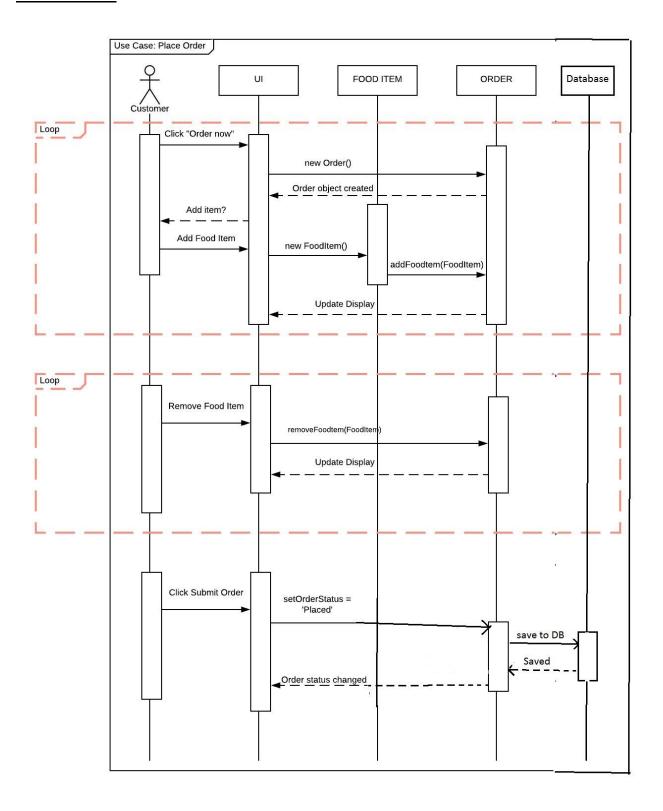


# **Sequence Diagram**

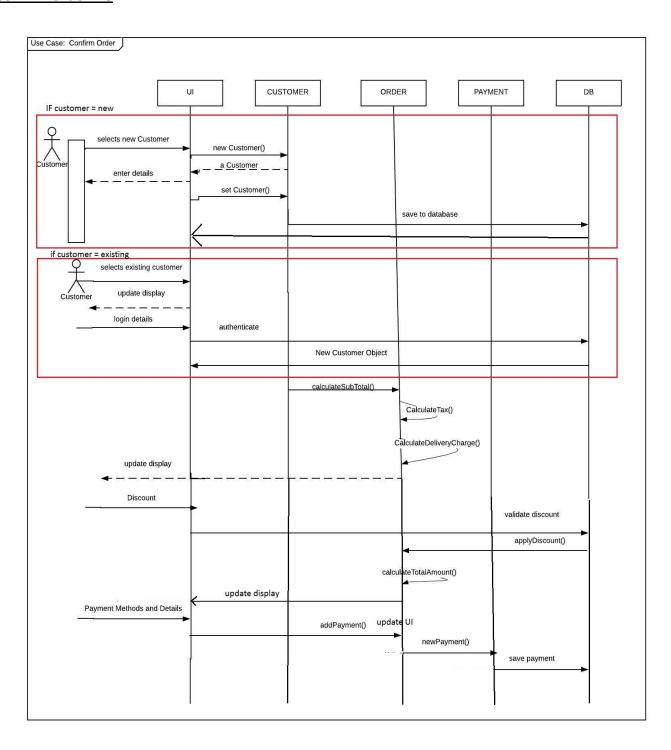
#### View Menu 1.1

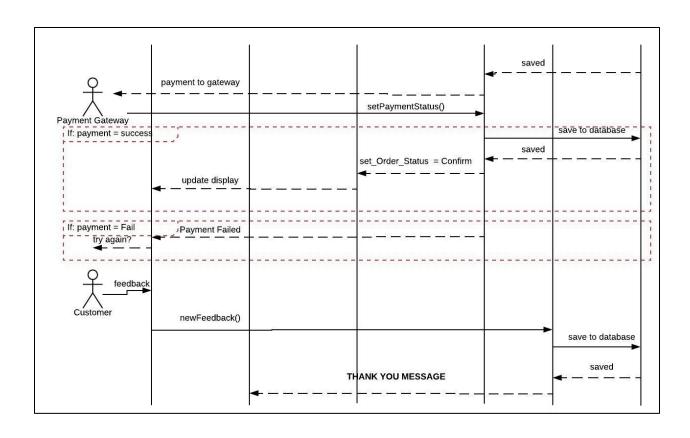


#### Place Order 1.2

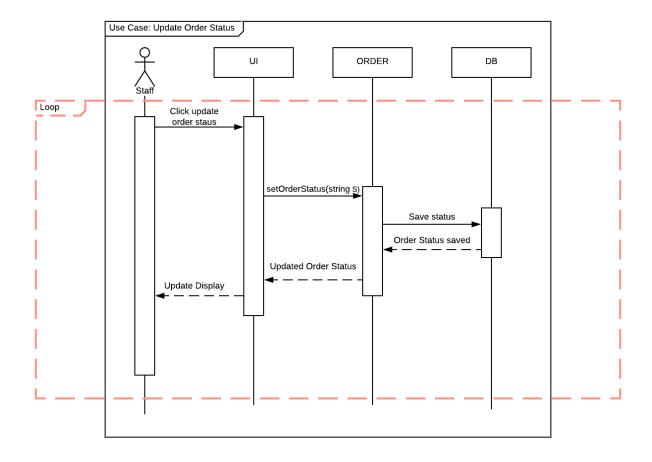


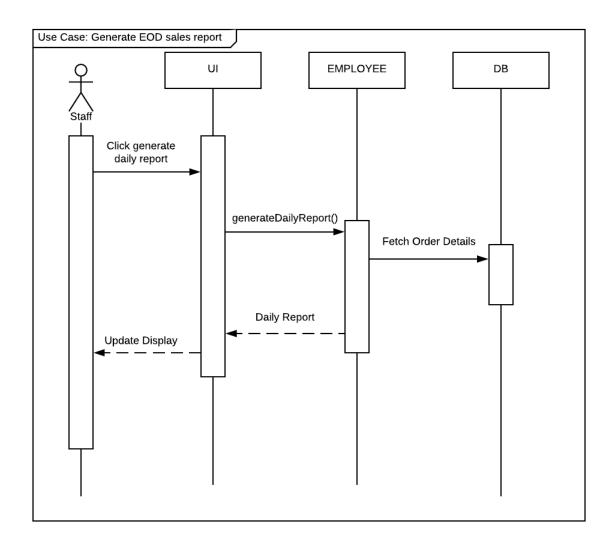
#### Confirm Order 1.3

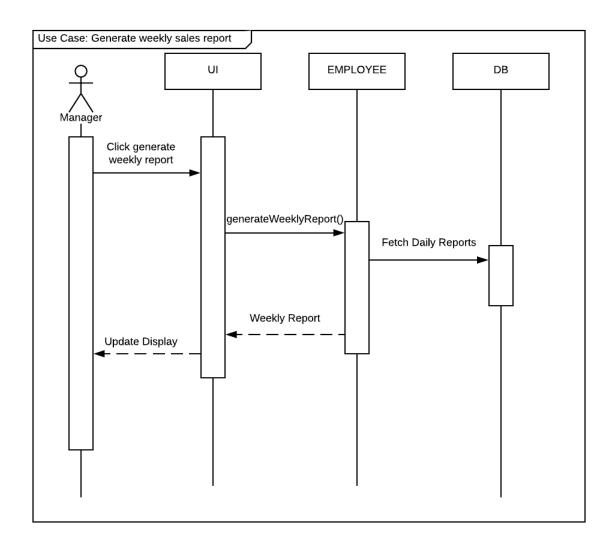


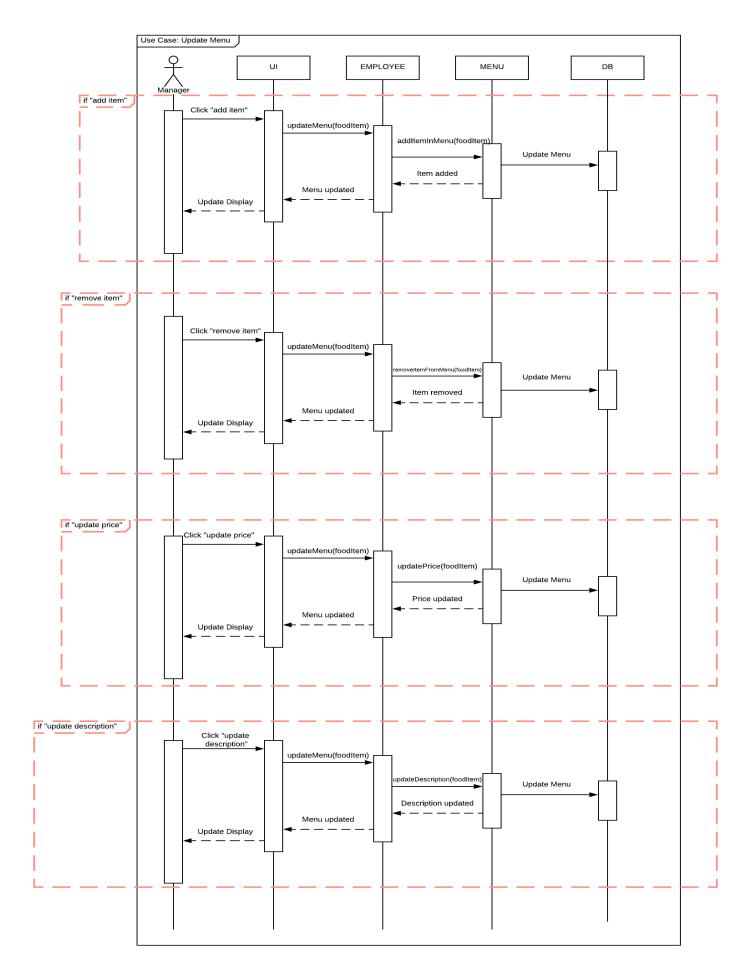


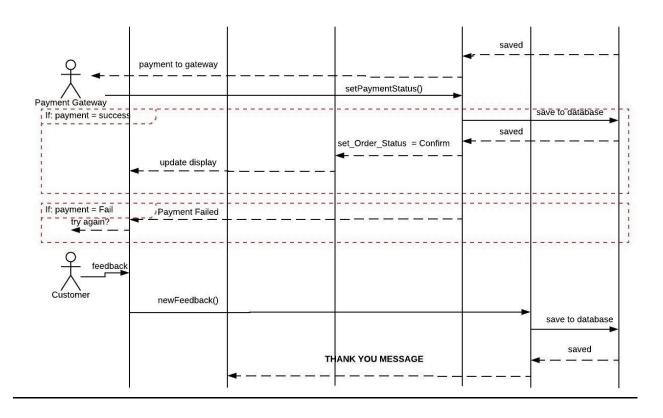
#### **Update Order Status 1.4**

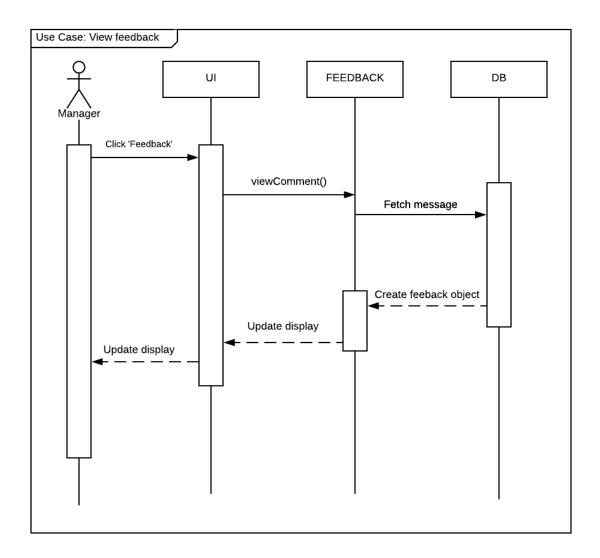




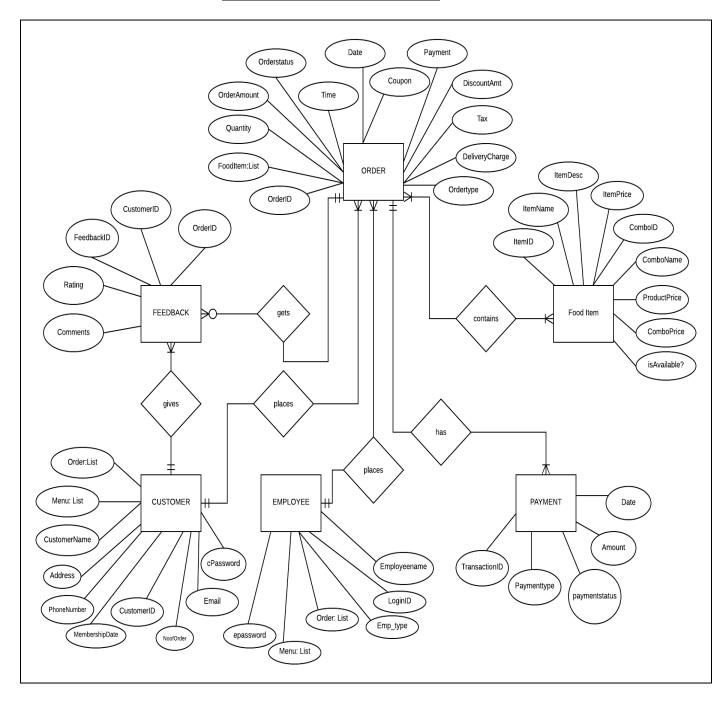






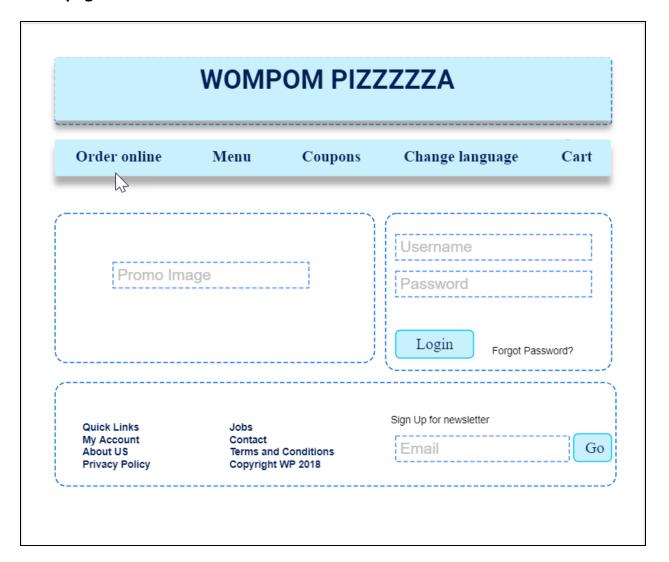


## **Entity-Relationship Diagram**

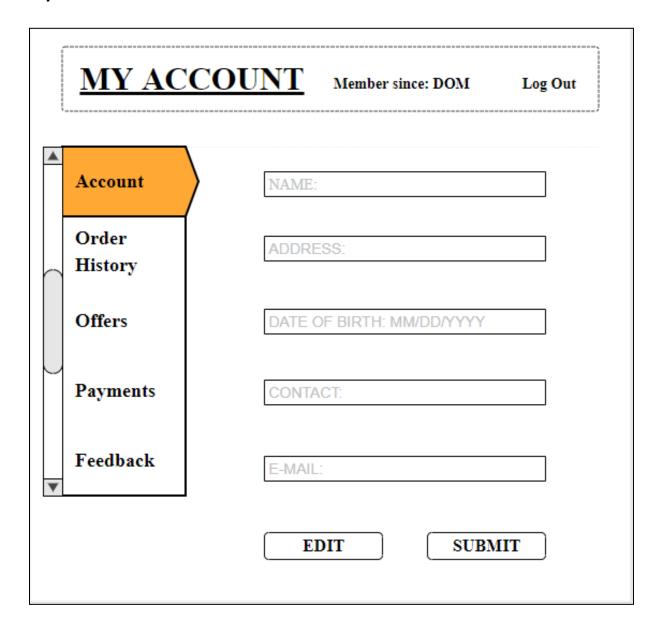


## **User-interface Mockup**

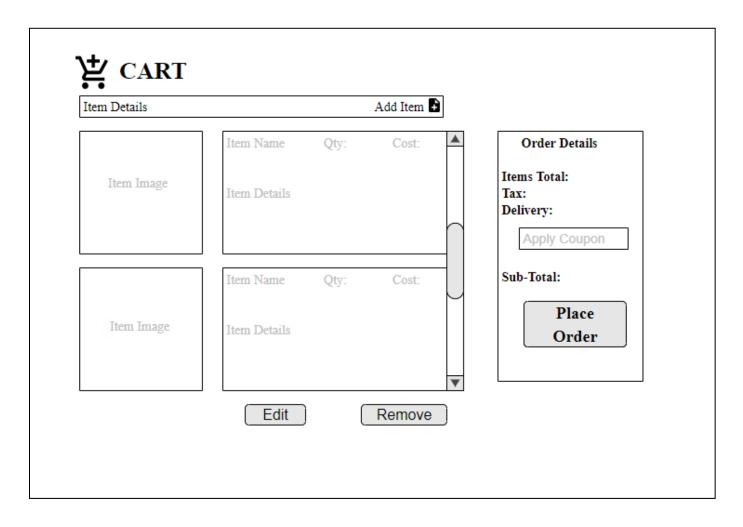
#### Homepage



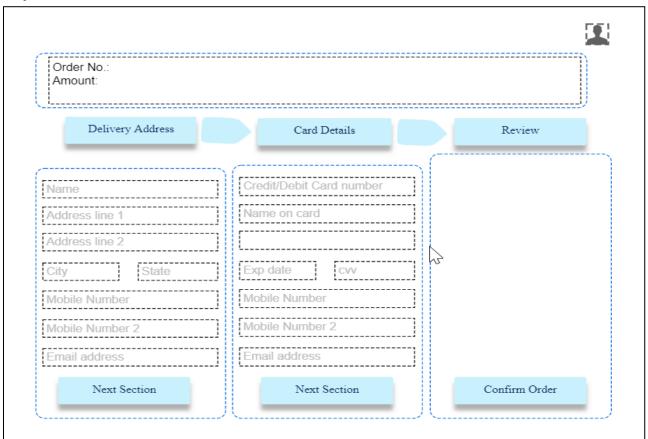
#### **My Account**



#### **Add Order to Cart**



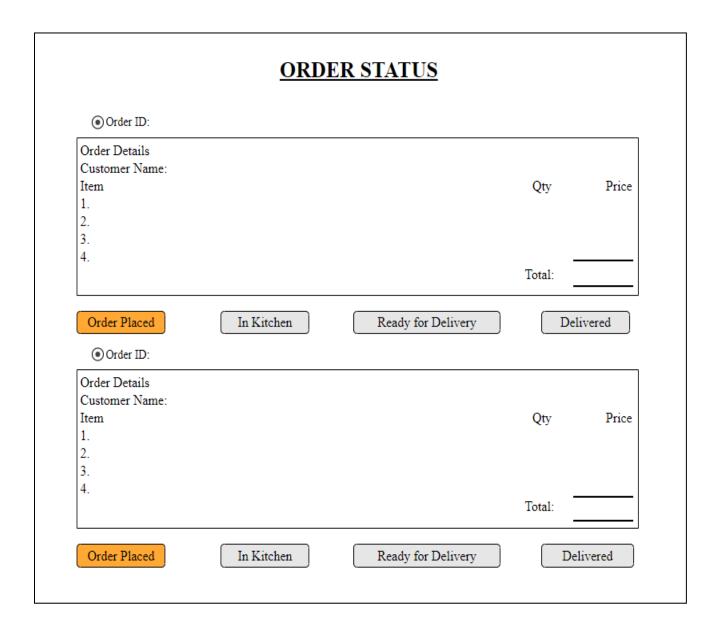
## **Payment Interface for Customers and Pommers**



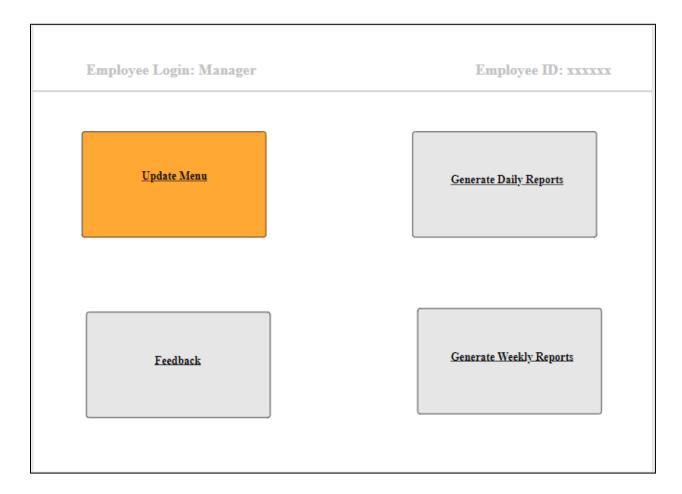
#### Pommer interface



## Wommer, Pommer and Dommer Notification System Interface



# **Manager System Interface**



# **Update Menu**

|                             | <u>UPDAT</u>       | E MENU       |             |  |
|-----------------------------|--------------------|--------------|-------------|--|
| Add Item                    | Update Description | Update Price | Remove Item |  |
| Item No.                    |                    |              |             |  |
| Item Type Options Item Name | •                  |              | Price       |  |
| Item Description            |                    |              |             |  |
|                             |                    |              |             |  |
|                             | SAVE               |              | CANCEL      |  |