David Beck

SWDV 630 – OO Software Architecture

Week 8 – Final Project Use Cases

Pizza Ordering System Scenario

I’ve chosen the Pizza Ordering System as the basis for my system. I have classes (actors) for this system as follows: Customer (with subclasses of new, existing, guest, and vip), Employee (with subclasses of manager, cook, cashier, and delivery). There is also a class for Order, though that might not come across when reading these use cases.

Use Case 1

|  |  |
| --- | --- |
| Use Case Name: | Create an account |
| ID: | UC1 |
| Scenario: | User creates an account |
| Triggering Event: | A new user wants to create an account |
| Brief Description: | A new user, when prompted, creates an account |
| Actors: | New user |
| Assumptions: | The user doesn’t currently have an account, and decides to create one |
| Frequency of Use: | Frequently |
| Related Use Cases: | NA |
| Stakeholders: | New User |
| Preconditions: | Doesn’t have an account |
| Postconditions: | Has an account |
| Main Course: | 1. The new user is prompted by the system, asking “would you like to create an account?” 2. The user selects “yes” 3. The system responds by asking them to input a username and password 4. The system checks so see if the username is already in the system 5. If it is, the system responds by telling the user that username already exist and to please try logging in 6. If it doesn’t exist, the username and password are accepted 7. The system responds by asking the user to input their name, address, and telephone number as required fields 8. The user inputs all the required fields 9. The system responds by accepting all the information, storing it, and presenting the user with the pizza menu for ordering |
| Alternate Course: | NA |

Use Case 2

|  |  |
| --- | --- |
| Use Case Name: | Order pizza as a guest |
| ID: | UC2 |
| Scenario: | User orders pizza as a guest |
| Triggering Event: | A user wants to order a pizza as a “guest” |
| Brief Description: | A user decides to order a pizza, but doesn’t want to create or use an existing account, and chooses to use the “guest” feature |
| Actors: | User |
| Assumptions: | The user, for whatever reason, decides they don’t want to create an account or use an already established account. So, they order a pizza as a “guest” instead |
| Frequency of Use: | Frequently |
| Related Use Cases: | Existing user orders pizza |
| Stakeholders: | User |
| Preconditions: | Hasn’t ordered a pizza |
| Postconditions: | Pizza is ordered |
| Main Course: | 1. After the user has selected their pizza and is ready for purchase, they are asked if they have an account by the system 2. They indicate they don’t have one 3. The system responds by asking if they’d like to create one 4. They user declines by selecting “guest” instead 5. The system responds by generating userID and orderID numbers and associating them the order 6. The user then proceeds to the payment flow |
| Alternate Course: | NA |

Use Case 3

|  |  |
| --- | --- |
| Use Case Name: | Existing user orders pizza |
| ID: | UC3 |
| Scenario: | An existing user orders a pizza |
| Triggering Event: | An existing user signs in to order a pizza |
| Brief Description: | An existing user, signs into their account, then proceeds to select and purchase items |
| Actors: | User |
| Assumptions: | An existing user wants to order a pizza. They sign into their account, which already has all their information for payment and delivery stored |
| Frequency of Use: | Frequently |
| Related Use Cases: | Order pizza as a guest |
| Stakeholders: | User |
| Preconditions: | No pizza order exists |
| Postconditions: | Pizza is ordered |
| Main Course: | 1. The user selects their choices for pizza and adds them to their order 2. They select their order and want to proceed to purchase 3. The system responds by asking if they are an existing user 4. The user is an existing user so they input their login information 5. The system responds by validates the login and displays the appropriate account info 6. The user is then able to select their stored delivery address and payment 7. The user completes their order and it is sent to the Employees to be completed |
| Alternate Course: | 1. The user could log into the system prior to selecting their pizza choices. 2. The system could be automatically logged into via saved information on the user’s computer |

Use Case 4

|  |  |
| --- | --- |
| Use Case Name: | VIP discount |
| ID: | UC4 |
| Scenario: | Existing VIP user gets a discount |
| Triggering Event: | When a VIP user account is logged in, they get their standard 10% discount |
| Brief Description: | When a user is a member of the VIP pizza club, they get a 10% discount on their order |
| Actors: | VIP User |
| Assumptions: | The user is a valid member of the VIP pizza club |
| Frequency of Use: | Semi-Frequently |
| Related Use Cases: | NA |
| Stakeholders: | User |
| Preconditions: | No pizza is ordered |
| Postconditions: | Pizza is ordered |
| Main Course: | 1. The user makes their pizza selections 2. The user is logged into the system 3. The system responds by validating their account information 4. The system then calculates the appropriate discount amount 5. The system applies the discount to the order and updates the purchase price 6. The user can see the original price, the applied discount percentage, and the new updated price 7. The user can now proceed to purchase flow |
| Alternate Course: | NA |

Use Case 5

|  |  |
| --- | --- |
| Use Case Name: | Add pizza to order |
| ID: | UC5 |
| Scenario: | User adds a pizza to their order |
| Triggering Event: | The user decides to add a pizza to their order |
| Brief Description: | The user must add a pizza to their order in order to purchase |
| Actors: | User |
| Assumptions: | The user wants to purchase a pizza, and after making their selections, adds it to their order |
| Frequency of Use: | Frequently |
| Related Use Cases: | NA |
| Stakeholders: | User |
| Preconditions: | No pizza is currently in their order |
| Postconditions: | A pizza is in their order |
| Main Course: | 1. The user views the pizza menu 2. The user can select the toppings they want 3. The system accepts the toppings and then prompts them to make a selection on size or type 4. The user can select a small, medium, large, extra-large, or calzone style pizza 5. Once the selection is made, the system will prompt them to “add to order” with a CTA button 6. The user clicks the button to “add to order” 7. The system responds by adding the pizza to their order 8. The pizza now appears in their order |
| Alternate Course: |  |

Use Case 6

|  |  |
| --- | --- |
| Use Case Name: | Remove pizza from order |
| ID: | UC6 |
| Scenario: | User wishes to remove a pizza from their order |
| Triggering Event: | User must select “remove” a specific pizza from their order |
| Brief Description: | The user decides they no longer want the pizza or pizzas from their order, they select the “remove” option and delete the pizza from the order |
| Actors: | User |
| Assumptions: | The user wishes to remove an item, pizza, from their order and wants the ability to simply remove it from an order |
| Frequency of Use: | Semi-Frequent |
| Related Use Cases: | NA |
| Stakeholders: | User |
| Preconditions: | A pizza has been added to an order |
| Postconditions: | A specific pizza is no longer in the order |
| Main Course: | 1. The user has added a pizza to their order, but has decided to remove it 2. The user selects the “remove” option that is next to the item in the order 3. The system responds by deleting the item from the order 4. The system responds by updating the order, now without the item. An updated price is now show, or the order displays text saying, “there is nothing in the order, please make a selection.” |
| Alternate Course: | NA |

Use Case 7

|  |  |
| --- | --- |
| Use Case Name: | Pay with Cash on Delivery |
| ID: | UC7 |
| Scenario: | User pays with cash when pizza is delivered |
| Triggering Event: | The user indicates on the order they will be paying with cash on delivery |
| Brief Description: | The user has selected their pizza choices and selected their mode (delivery) for receiving the order. They then indicate on the payment page that they will be paying with cash |
| Actors: | User |
| Assumptions: | The user knows the method of payment they wish to use and want the ability to pay with cash upon receiving the pizza |
| Frequency of Use: | Frequently |
| Related Use Cases: | Pay with Credit Card, Pay with Cash on Pick Up |
| Stakeholders: | User, Delivery Person |
| Preconditions: | The user has not yet paid of their order |
| Postconditions: | Their order is paid for and correct change is given |
| Main Course: | 1. Upon arriving at the payment section of the order flow, and having selected to have it delivered, the user selects to pay with cash 2. The system responds with the total they will have to pay the delivery person upon arrival 3. The system then sends order to the cook for preparation, assigns a delivery person to deliver, and marks the payment as pending for cash 4. When the delivery person arrives with their order, they present the user with a paper receipt 5. The user then pays the delivery person 6. They user is given the correct change (if necessary), and the delivery person hands over the order to the customer |
| Alternate Course: | NA |

Use Case 8

|  |  |
| --- | --- |
| Use Case Name: | Pay with Cash on Pickup |
| ID: | UC8 |
| Scenario: | User pays with cash when picking up the pizza |
| Triggering Event: | The user indicates on the order they will be paying with cash when they pick up their order |
| Brief Description: | The user has selected their pizza choices and selected their mode (pickup) for receiving the order. They then indicate on the payment page that they will be paying with cash |
| Actors: | User |
| Assumptions: | The user knows the method of payment they wish to use and want the ability to pay with cash upon receiving the pizza |
| Frequency of Use: | Frequently |
| Related Use Cases: | Pay with Credit Card, Pay with Cash on Delivery |
| Stakeholders: | User, Cashier |
| Preconditions: | The user has not yet paid of their order |
| Postconditions: | Their order is paid for and correct change is given |
| Main Course: | 1. Upon arriving at the payment section of the order flow, and having selected to pick it up, the user selects to pay with cash 2. The system responds with the total they will have to pay the cashier upon arrival 3. The system then sends order to the cook for preparation, and marks the payment as pending for cash 4. When the user arrives to pick up their order, the cashier tell them the total 5. The user then pays the cashier 6. They user is given the correct change (if necessary), and the cashier hands over the order to the customer |
| Alternate Course: |  |

Use Case 9

|  |  |
| --- | --- |
| Use Case Name: | Manager updates an order |
| ID: | UC9 |
| Scenario: | Manager updates a user’s order |
| Triggering Event: | Manager must find and update a user’s order |
| Brief Description: | The user has requested a change to their order, they call the store and make a requested change. The Manager finds the order and updates it |
| Actors: | User, Manager, Cashier |
| Assumptions: | The user wants to make a change to their order and calls to make the change |
| Frequency of Use: | Sometimes |
| Related Use Cases: | NA |
| Stakeholders: | User, Manager |
| Preconditions: | An order has already been submitted, but a change is requested |
| Postconditions: | The order is updated |
| Main Course: | 1. An order has been submitted via the online system 2. The user decides they need to make a change to the order. 3. Online, the system responds by displaying the store’s telephone number and telling the user to call 4. The user calls the store and speaks with the cashier, making the change request 5. If it is possible in the cooking cycle to make the change, the cashier accepts the change 6. If the change cannot be made, as the pizza is too far into the cooking cycle to make the change, the cashier tells the customer the change cannot be made 7. The cashier makes the changes, and gets managerial approval for the change. |
| Alternate Course: |  |

Use Case 10

|  |  |
| --- | --- |
| Use Case Name: | User opts for delivery |
| ID: | UC10 |
| Scenario: | A user chooses to have the order delivered |
| Triggering Event: | A user must select a mode of accepting an order, and chooses delivery |
| Brief Description: | When a user reaches the portion of the ordering flow, they must choose a mode of accepting their order, the user chooses to have the order delivered to their house |
| Actors: | User, Delivery Person |
| Assumptions: | The user made an informed choice to have their pizza delivered instead of dining in or picking up their order |
| Frequency of Use: | Frequently |
| Related Use Cases: | NA |
| Stakeholders: | User, Manager, Delivery Person |
| Preconditions: | A pizza has been added to the order, but a mode for receiving it hasn’t been selected |
| Postconditions: | Delivery has been selected as the mode |
| Main Course: | 1. The user has added at least one pizza to their order 2. They select Delivery as their mode of receiving the order 3. The system responds by asking for an address for the pizza to be delivered to or to confirm the address on-file for the user if they have an account 4. Once confirmed and the payment is completed, the system assigns a delivery person to the order |
| Alternate Course: | NA |

Use Case 11

|  |  |
| --- | --- |
| Use Case Name: | Pay with Credit Card |
| ID: | UC11 |
| Scenario: | User pays for order with a credit card |
| Triggering Event: | User must pay for their order, and chooses to do so with a Credit Card |
| Brief Description: | The user, upon reaching the payment portion of the ordering flow, chooses to pay with a credit card |
| Actors: | User |
| Assumptions: | The user has a valid credit card and knows the card will be charged when the information is entered |
| Frequency of Use: | Frequently |
| Related Use Cases: | Pay with Cash on Delivery, Pay with Cash on Pickup |
| Stakeholders: | User, Manager |
| Preconditions: | The user hasn’t paid for the order yet |
| Postconditions: | The order is paid for using the credit card supplied and it’s properly charged |
| Main Course: | 1. The user enters an order and reaches the portion of the ordering flow where payment is needed 2. The user chooses the radio button for Credit Card payment 3. The system responds by changing the UI to take the users Credit Card information 4. When the user has input their CC info and all required fields are filled out, the user will click the submit button 5. The system responds by running the credit card 6. If successful, the payment is process and the system responds by displaying confirmation on the screen and thanking them for their order 7. If unsuccessful, the system will respond with the appropriate error, telling the user what information provided was incorrect or otherwise why the transaction was unsuccessful and prompt them to try again and returning to step 5 |
| Alternate Course: | NA |

Use Case 12

|  |  |
| --- | --- |
| Use Case Name: | Forgot Password |
| ID: | UC12 |
| Scenario: | A user has forgotten their password |
| Triggering Event: | The user must supply a password to access their account, but can’t remember it |
| Brief Description: | The user would like to place an order, and after attempting log into their account, cannot remember their password |
| Actors: | User |
| Assumptions: | The user has a valid account with the pizza place |
| Frequency of Use: | Seldom |
| Related Use Cases: | NA |
| Stakeholders: | User, System admin |
| Preconditions: | The user cannot log into their account |
| Postconditions: | The user is successfully logged into their account |
| Main Course: | 1. The user has added items to their order and has reached the point where the system asks them to log into their account 2. The user attempts to log in, but is unsuccessful 3. The user clicks the “forgot password” button under the log in module 4. The system responds by asking them for the email associated with their account 5. The user inputs their email address 6. The system responds by sending that email address and email with a link to change their password 7. The user leaves the pizza ordering system and entering their email account 8. They see the email from the pizza ordering system and link the embedded link 9. The system responds by displaying a module that asks them to pick a new password and confirm it 10. The user clicks the submit button 11. If the passwords match, the user is taken back to their order and can continue the ordering process 12. If the passwords do not match, an error is shown, this continues until the password and the password confirmation match |
| Alternate Course: | 1. The user could choose to continue the ordering flow as a guest and address the forgotten password problem until another time. |