Baylor Burgers

By Francis Boyle, Patrick Boyle, Timmy Frederiksen, Johnny Acosta

Project Vision

Our vision for Baylor Burgers is a self-order kiosk for restaurants. We plan to implement features such as allowing customers to add, delete and customize items for their order. We also plan to allow for ownership/managers to change the menu from the system. The system will also facilitate payment and allow customers to redeem deals. The system will also place orders to the restaurant so the employees can begin preparing the order as soon as possible. Our top priority is providing a simple, easy-to-understand user interface and allow for the quickest

possible order time, streamlining the ordering process for the customer and the restaurant.

Gantt Diagram

Chart, bar chart

Description automatically generated

Domain Model

Graphical user interface, application

Description automatically generated

List of Actors

**Actors:**

Customer – Orders food through system and should be able to add, delete, and customize items for their order. Also, should be able to pay for food and redeem special offers on the food.

Manager – Should be able to login to an unrestricted version of the system and add, delete, and edit items on the menu. Should be able to override certain functions and restart the system to fix issues.

Employee – Should be able to receive copies of customer orders to begin preparing the order as soon as possible.

List of Requirements

**Requirements**:

|  |  |
| --- | --- |
| REQ-1 | The system must keep a log of purchase transactions. |
| REQ-2 | The system must handle a card payment and authenticate the transaction. |
| REQ-3 | The manager must be able to update the inventory of items on the menu. |
| REQ-4 | The customer must be able to contact the employee. |
| REQ-5 | An employee needs to be able to be contacted. |
| REQ-6 | The account information for each customer, employee, and manager must be verified. |
| REQ-7 | Distribute coupons and reward discounts. |
| REQ-8 | Access to database or excel spreadsheet for the purpose of storing the number of items available. |
| REQ-9 | The customer must be able to navigate/search menu and items. |
| REQ-10 | The customer must be able to add/remove items from cart. |
| REQ-11 | The customer must be able to pay for the items in cart. |
| REQ-12 | The system must handle a cash payment. |
| REQ-13 | The employee and manager must be able to make an account. |
| REQ-14 | The manager must be able to add categories of items. |
| REQ-15 | All employees and managers must be able to log into their accounts. |
| REQ-16 | The system must hold a record of all employees and managers name, information, hours, and salary. |
| REQ-17 | The customer and manager must be able to update personal information. |

Traceability Matrix

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | REQ-1 | REQ-2 | REQ-3 | REQ-4 | REQ-5 | REQ-6 | REQ-7 |
| UC-1 | Add Item to Cart |  |  |  |  |  |  |  |
| UC-2 | Remove Item from Cart |  |  |  |  |  |  |  |
| UC-3 | Search for Items |  |  |  | x | x |  |  |
| UC-4 | Add Item to Menu |  |  | x |  |  |  |  |
| UC-5 | Edit Item to Menu |  |  | x |  |  |  |  |
| UC-6 | Remove Item in Menu |  |  | x |  |  |  |  |
| UC-7 | Pay for Items in Cart | x | x |  |  |  |  | x |
| UC-8 | Coupon/Rewards Discount |  |  |  |  |  |  | x |
| UC-9 | Manager Login |  |  |  |  |  | x |  |
| UC-10 | Display Menu |  |  |  |  |  |  |  |
| UC-11 | Get Help from Employee |  |  |  | x | x |  |  |
| UC-12 | Manager Sign-up |  |  |  |  |  | x |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | REQ-  8 | REQ-  9 | REQ-  10 | REQ-  11 | REQ-  12 | REQ-  13 | REQ-  14 |
| UC-1 | Add Item to Cart | x |  | x |  |  |  |  |
| UC-2 | Remove Item from Cart |  |  | x |  |  |  |  |
| UC-3 | Search for Items | x | x |  |  |  |  |  |
| UC-4 | Add Item to Menu | x |  |  |  |  |  | x |
| UC-5 | Edit Item to Menu | x |  |  |  |  |  | x |
| UC-6 | Remove Item in Menu | x |  |  |  |  |  |  |
| UC-7 | Pay for Items in Cart | x |  |  | x | x |  |  |
| UC-8 | Coupon/Rewards Discount |  |  |  |  |  |  |  |
| UC-9 | Manager Login |  |  |  |  |  | x |  |
| UC-10 | Display Menu |  |  |  |  |  |  |  |
| UC-11 | Get Help from Employee |  |  |  |  |  |  |  |
| UC-12 | Manager Sign-up |  |  |  |  |  | x |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | REQ-15 | REQ-16 | REQ-17 |
| UC-1 | Add Item to Cart |  |  |  |
| UC-2 | Remove Item from Cart |  |  |  |
| UC-3 | Search for Items |  |  |  |
| UC-4 | Add Item to Menu |  |  |  |
| UC-5 | Edit Item to Menu |  |  |  |
| UC-6 | Remove Item in Menu |  |  |  |
| UC-7 | Pay for Items in Cart |  |  |  |
| UC-8 | Coupon/Rewards Discount |  |  |  |
| UC-9 | Manager Login | x | x | x |
| UC-10 | Display Menu |  |  |  |
| UC-11 | Get Help from Employee |  |  |  |
| UC-12 | Manager Sign-up |  | x | x |

Use Case Diagrams and System Sequence Diagrams

**ID:** UC Add Item to Cart

**Level:** User Goal

**Scope:** Kiosk system

**Actors (Stakeholders) and interests:**

Customer

* Person interested in ordering food.

Employee

* Person responsible for preparing food.

**Preconditions:**

Customer is using the application.

Customer found an item to add to cart.

**Postconditions:**

The item with given quantity is added to the cart.

The Customer returns to the page where he/she found the item.

**Main success scenario:**

1. Customer clicks to add item to cart.
2. Customer specifies the quantity of the item to add to cart.
3. The system verifies that the items can be prepared.
   1. Ingredients for the item are available.
4. The system sends message to restaurant employee.

**Extensions:**

3.a. If item(s) cannot be prepared.

1. The maximum quantity available is displayed to the screen.

2. The Customer returns to the page where he/she found the item.

Graphical user interface, text, application, Word

Description automatically generated

**ID:** UC Remove Item from Cart

**Level:** User Goal

**Scope:** Kiosk system

**Actors (Stakeholders) and interests:**

Customer

* Person interested in ordering food.

Employee

* Person responsible for preparing food.

**Preconditions:**

Customer found an item to remove from cart, on shopping cart page.

**Postconditions:**

The item is removed from the cart.

The Customer stays on shopping cart page.

**Main success scenario:**

1. Customer clicks to remove item from cart.
2. The system asks for the quantity to be removed.
   1. Only options given to Customer are valid options. (i.e., not -1)
3. Customer selects the quantity he/she wants removed of the specific item.
4. The system removes the quantity/item and updates the information to screen.
5. The system sends message to update the employee.

**Extensions:**

3.a. If customer no longer wants to remove items.

1. The customer may cancel the removal of the items.

2. The customer is returned to the shopping cart page.

Graphical user interface, text, application

Description automatically generated

**ID:** UC Search for Item

**Level:** User Goal

**Scope:** Kiosk system

**Actors (Stakeholders) and interests:**

Customer

* Person interested in ordering food.

Employee

* Person responsible for helping Customers.

**Preconditions:**

Customer is using the application.

**Postconditions:**

Customer has found the item they were looking for.

**Main success scenario:**

1. Customer locates the navigation bar.
2. Customer chooses which menu category their item best fits.
3. Customer looks through the list of the category and locates the item.

**Extensions:**

3.a. If item(s) is not in menu.

1. No item will appear.

2. Customer contacts employee for help.

**Alternative success scenario:**

1. Customer locates search bar.
2. Customer types in name of item they are looking for.
3. Customer selects item from search bar.

**Extensions:**

3.a. If item(s) is not in menu.

1. No item will appear.

2. Customer contacts employee for help.

Graphical user interface

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, application, Word

Description automatically generated

Graphical user interface, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, application, Word

Description automatically generated

**ID** UC Add an Item to Menu

**Scope** Menu Item System

**Level** Manager requirements

**Stakeholders and Interest**

Manager

* person that is interested in adding a new item to menu

**Precondition**:

1. Manager is logged in
2. Manager is on menu view page

**Postcondition**: New item is added to menu

1. Manager clicks to add item to menu.
2. System asks for product specification attributes
3. Manager enters in product specification attributes.
4. System displays the new menu page

**Main success scenario**:

**Extensions**:

3.a\* If manager navigates away without finishing

1. stop and do not preform specified action

3.b\* Manager wishes to not add an item

1. do not add and return to view menu page

Graphical user interface, application

Description automatically generated

**ID** UC Edit an Item in Menu

**Scope** Menu Item System

**Level** manager capabilities

**Stakeholders and Interest**

Manager

-person that is interested in editing item in menu

**Precondition**:

1. Manager is logged in
2. Manager is on menu view page

**Postcondition**: Item specifications are edited

**Main success scenario**:

1. Manager clicks the Edit button on item to be edited
2. System shows attributes of item specification
3. Manager edits the desired specification attributes
4. System asks for confirmation to edit
5. Manager confirms
6. System displays the new menu page

**Extensions**:

a.\* If manager navigates without finishing

1. stop and do not preform specified action

3.a\* Manager wishes to not edit attribute

1. leave the attribute alone

3.b\* Manager wishes to not edit the item

1. do not edit and return to view menu page

5.a Manager wishes to not confirm edit

1. do not edit the item

Graphical user interface, table

Description automatically generated

**ID** UC Remove an Item from Menu

**Scope** Menu Item System

**Level** manager capabilities

**Stakeholders and Interest**

Manager

-person that is interested in removing a new item from menu

**Precondition**:

1. Manager is logged in
2. Manager is on menu view page

**Postcondition**: Item is removed from menu

**Main success scenario**:

1. Manager clicks the Delete button on item that wishes to be deleted
2. System prompts manager about her decision
3. Manager confirms
4. System displays the new menu page

**Extensions**:

2.a\* If manager navigates away without finishing

1. stop and do not preform specified action

3.a\* Manager wishes to keep the item

1. do not remove and return to view menu page

Graphical user interface, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Chart, box and whisker chart

Description automatically generated

Operation Contracts

Name: addItem(itemID, quantity)

Cross-references: UC Add Item to Cart

Precondition: The customer has an item that they want to add to cart.

Postcondition: An item or items (depending on quantity) is added to cart.

Name: removeItem(itemID, quantity)

Cross-references: UC Remove Item from Cart

Precondition: The customer has an item that they want to remove from their cart.

Postcondition: The item is removed from the cart.

Name: navigate(page)

Cross-references: UC Search for an Item

Precondition: The customer is on a page, and the customer wants to visit another page.

Postcondition: The customer is now at another page, the page chosen by the customer.

Name: callHelp(message)

Cross-references: UC Search for an Item and UC Call Help

Precondition: The customer needs help on their order.

Postcondition: An employee is notified that a customer needs help.

Name: addMenuItem(name, price, details, startTime, endTime)

Cross References: AddItemToMenu

Preconditions:

1. The manager is logged in and on the menu page
2. The manager has an item that needs to be added to the menu

Postconditions: The menu now contains the new item

Name: editMenuItem(name, price, details, startTime, endTime)

Cross References: RemoveMenuItem

Preconditions:

1. The manager is logged in and on the menu page
2. An item exists in the menu that the manager would like to edit

Postconditions: The item is updated with the new attributes

Name: removeMenuItem(name)

Cross References: RemoveMenuItem

Preconditions:

1. The manager is logged in and on the menu page
2. An item exists in the menu that the manager would like to delete

Postconditions: The menu no longer has that item available

Name: completeRequest(decision)

Cross References: RemoveMenuItem and EditMenuItem

Preconditions: The manager has made a decision that will make a major change so it must be verified

Postconditions: The decision was verified with the manager

Name: start()

Cross-references: UC Display Menu

Precondition: The customer is at the kiosk

Postcondition: The customer is able to see the kiosk starting

Name: displayMenu()

Cross-references: UC Display Menu

Precondition: The customer is at the start screen

Postcondition: The customer is able to view the menu selection

Name: editItem()

Cross-references: UC Manager Sign-In

Precondition: The manager is on admin view of the menu

Postcondition: The manger changes the menu accordingly

Operation Name: redeemOffer()

Cross-References: UC Redeem Offer

Pre-Conditions: The user has a code to redeem a specific offer.

Post-Conditions: The system has prompted the user to enter the offer code.

Operation Name: enterOfferCode(code)

Cross-References: UC Redeem Offer

Pre-Conditions: The system has prompted the user to enter the offer code.

Post-Conditions: The user has entered the code and the system has applied the offer to the order.

Operation Name: beginPayment()

Cross-References: UC Pay

Pre-Conditions: The user wants to pay for their order.

Post-Conditions: The payment process has begun, and the system is prompting the user for payment info.

Operation Name: pay(amount)

Cross-References: UC Pay

Pre-Conditions: The user has entered payment information into the system.

Post-Conditions: The system has either authorized the payment or the payment is invalid, and the user has been re-prompted for payment.

Operation Name: beginLogin()

Cross-References: UC Manager Login

Pre-Conditions: The manager wants to login.

Post-Conditions: The login process has begun, and the manager has been prompted for credentials.

Operation Name: login(username, password)

Cross-References: UC Manager Login

Pre-Conditions: The manager has entered a username and password into the system.

Post-Conditions: The manager has either been logged into the system successfully or the credentials are invalid, and the manager is then re-prompted for login credentials.

System Operations

Graphical user interface

Description automatically generated

Use Case Diagram

Graphical user interface

Description automatically generated

Wireframes

Graphical user interface, application

Description automatically generated

Graphical user interface, application, Word

Description automatically generated

Graphical user interface, application, table, Word

Description automatically generated

Graphical user interface, application, table, Word

Description automatically generated

Graphical user interface, application, Word

Description automatically generated

Timecards Report

Francis Boyle – 12½ Hours

* Attended Team Meetings
* Use Cases, System Sequence Diagrams, and Operation Contracts
  + Add Item to Cart
  + Remove Item from Cart
  + Search for Item
* Requirements (Functional and Non-Functional)
* Traceability Matrix
* Assembled PDF

Patrick Boyle – 11 Hours

* Attended Team Meetings
* Use Cases, System Sequence Diagrams, and Operation Contracts
  + Add Item to Menu
  + Remove Item from Menu
  + Edit Item from Menu
* Domain Model

Timmy Frederiksen – 9 hours

* Attended Team Meetings
* Website, GitHub, Tello Links
* Use Case Diagram
* Use Cases, System Sequence Diagrams, and Operation Contracts
  + Manager Login
  + Redeem Offer
  + Pay

Johnny Acosta – 10 Hours

* Attended Team Meetings
* Use Cases, System Sequence Diagrams, and Operation Contracts
  + Manager Sign-up
  + Call Employee for Help
  + Display Menu
* Wireframes

Issue Tracking

A screenshot of a computer

Description automatically generated with medium confidence

Issues Resolved: 19

Trello Board Linked Below:

Trello: <https://trello.com/b/xjHC0LGq/prowling-bears>

Website, Trello, GitHub Links

Website: <https://csi3471-kiosk-project.weebly.com>

Trello: <https://trello.com/b/xjHC0LGq/prowling-bears>

GitHub: <https://github.com/timmyFrederiksen/GroupProjectFall2021>

Trello History

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

More Activity on Trello (Links Above)

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated

Graphical user interface, text, application, Word

Description automatically generated