

## M08 Final Project

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- Due Oct 11, 2023 by 11:59pm
- Points 300
- Submitting an external tool
- Available Sep 18, 2023 at 12am - Oct 11, 2023 at 11:59pm

This assignment was locked Oct 11, 2023 at 11:59pm.

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## Purpose

In this assignment, you will demonstrate how to write simple programs that get input from the user, produce output, perform simple calculations, and make decisions. You will also demonstrate structs, functions, enumerations, and arrays.

## Instructions

### Assignment Header

At the top of each of your C++ programs, you should have at least four lines of documentation:

Program name (the C++ file name(s)), Author (your name), Date last updated, and Purpose (a brief description of what the program accomplishes). Here is an example:

```
/* Program name: jbtictactoe.cpp
 * Author: John Doe
 * Date last updated: 5/1/2017
 * Purpose: Play the game of Tic-Tac-Toe
 */
```

### Assignment: Restaurant Management System

Maurice used to work in IT but decided it was time for a career change. He opened a restaurant called MessiJoes. You will be creating a program to help manage the restaurant operations. Your program must take reservations and check customers in when they arrive. You will also need to manage the orders by allowing for order entry and marking an order as completed. The final functionality should calculate and enter payment for customer bills. The program must meet the following requirements:

1. You will need to create a struct to manage a reservation. A reservation will be for a certain time, have the customer name, and the number of people.
2. You will need to create a struct to manage a table. Tables have a size that determines the maximum number of people that can sit at them. When a reservation is checked in, the group will be assigned to a table that is large enough to hold the group. You should also keep track of the number of people currently seated at the table and if the table is free to be used or if it is currently being used. Each table should have a table number.
3. You will need to create an enumeration to manage the menu items. The menu will consist of the following items.
  1. Veggie Burger \$35
  2. Hamburger \$45
  3. Fried Chicken Sliders \$38
  4. Hamburger Sliders \$38
  5. Veggie Sliders \$38
  6. Haddock Sandwich \$38
  7. BLT \$42
  8. Faux BLT \$42
  9. Chicken Burrito \$42
  10. Falafel Wrap \$42
  11. Cheese Pizza \$59
  12. Pepperoni Pizza \$59
  13. Faux meat and chips \$77
  14. Fish and chips \$77
4. You will need to create a struct to manage an order. The order needs to be associated with a table and a customer reservation. It should contain an array of menu items that represents the items ordered by the customers at that table. It should also have the number of items ordered (1 per person in the party). There are booleans that represent if the order is complete meaning that it has been delivered to the table and if it has been paid.
5. You will need to create arrays to manage the tables, reservations, and orders.
  1. The restaurant has 20 tables
    - 8 - 2 Person
    - 2 - 10 Person
    - 4 - 6 Person
    - 6 - 4 Person
  2. The largest party the restaurant can handle for a reservation is 10 people. For an order, the max number of items ordered is also 10 (1 per person).
  3. There can be 50 reservations at most.
  4. There is 1 order per reservation, so there are also, at most, 50 orders.
6. The main UI for the program will be a menu that has the following options
  1. Make Reservation
    - This option collects information and adds a reservation to the system.
  2. Check-in for reservation.
    - This option displays all reservations that haven't yet checked in and allows you to check in the reservation and assign it to a table.
  3. Enter Order
    - Enters an order for a table.
  4. Complete Order
    - Marks an order as completed which means it has been delivered to a table and is ready to be paid for.
  5. Calculate and pay the bill
    - Calculates the bill based on the menu prices listed above with the menu items. A 20% tip and 10% tax should be added to the final total. The tip amount is calculated based on the subtotal without the tax added in.
  6. Close the restaurant
    - This option will only show up if there are no pending reservations and there are no outstanding orders (orders that are not completed and not paid for), and when chosen, it exits the program.
7. You must have at least 3 functions. Any functions pulled from class demos do not count toward the 3.
8. You can create additional structs/arrays as needed, but you cannot use classes, pointers, vectors, or other constructs not covered during the semester.

### Sample Output

```
Welcome to Messijoes
1. Make Reservation
```

```
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
5
Choose the order to calculate the bill:
There are no orders ready for payment
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
1
Enter a name for the reservation: Louie Singleton
Enter the number of people in the party: 4
Enter the time for the reservation in HH::MM AM/PM: 07:30 PM
Please confirm the reservation:
Reservation Name: Louie Singleton
Reservation Time: 07:30 PM
Number in Party: 4
Is this information correct [Y]es, [N]o (make changes), [C]ancel? c
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
1
Enter a name for the reservation: Neha Fuller
Enter the number of people in the party: 5
Enter the time for the reservation in HH::MM AM/PM: 10:30 AM
Please confirm the reservation:
Reservation Name: Neha Fuller
Reservation Time: 10:30 AM
Number in Party: 5
Is this information correct [Y]es, [N]o (make changes), [C]ancel? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
Please choose the table for the order:
There are no tables without orders.
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
1
Enter a name for the reservation: Rahim Hull
Enter the number of people in the party: 10
Enter the time for the reservation in HH::MM AM/PM: 07:00 PM
Please confirm the reservation:
Reservation Name: Rahim Hull
Reservation Time: 07:00 PM
Number in Party: 10
Is this information correct [Y]es, [N]o (make changes), [C]ancel? n
What do you want to change?
1. Name
2. Number of People
3. Time
4. Cancel
3
Enter the time for the reservation in HH::MM AM/PM: 10:00 AM
Please confirm the reservation:
Reservation Name: Rahim Hull
Reservation Time: 10:00 AM
Number in Party: 10
Is this information correct [Y]es, [N]o (make changes), [C]ancel? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
1
Enter a name for the reservation: Zarah Silva
Enter the number of people in the party: 9
Enter the time for the reservation in HH::MM AM/PM: 03:00 PM
Please confirm the reservation:
Reservation Name: Zarah Silva
Reservation Time: 03:00 PM
Number in Party: 9
Is this information correct [Y]es, [N]o (make changes), [C]ancel? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
3
Choose the order to complete:
There are no orders to complete.
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
```

```
5. Calculate and Pay Bill
Enter a name for the reservation: Mario Hartley
Enter the number of people in the party: 9
Enter the time for the reservation in HH::MM AM/PM: 02:00 PM
Please confirm the reservation:
Reservation Name: Mario Hartley
Reservation Time: 02:00 PM
Number in Party: 9
Is this information correct [Y]es, [N]o (make changes), [C]ancel? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
2
Choose the reservation to check in
1: Neha Fuller - 10:30 AM, 5 people
2: Rahim Hull - 10:00 AM, 10 people
3: Zarah Silva - 03:00 PM, 9 people
4: Mario Hartley - 02:00 PM, 9 people
1
Please assign a table:
9: 10 people
10: 10 people
11: 6 people
12: 6 people
13: 6 people
14: 6 people
11
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
2
Choose the reservation to check in
2: Rahim Hull - 10:00 AM, 10 people
3: Zarah Silva - 03:00 PM, 9 people
4: Mario Hartley - 02:00 PM, 9 people
2
Please assign a table:
9: 10 people
10: 10 people
10
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
Enter a name for the reservation: Barry Pham
Enter the number of people in the party: 9
Enter the time for the reservation in HH::MM AM/PM: 10:30 PM
Please confirm the reservation:
Reservation Name: Barry Pham
Reservation Time: 10:30 PM
Number in Party: 9
Is this information correct [Y]es, [N]o (make changes), [C]ancel? N
What do you want to change?
1. Name
2. Number of People
3. Time
4. Cancel
1
Enter a name for the reservation: Gabriella Clements
Please confirm the reservation:
Reservation Name: Gabriella Clements
Reservation Time: 10:30 PM
Number in Party: 9
Is this information correct [Y]es, [N]o (make changes), [C]ancel? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
3
Please choose the table for the order:
10: Table 10
11: Table 11
10
Please choose entree number 1
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
14
Please choose entree number 2
1: Veggie Burger
```

2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
8  
Please choose entree number 3  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
11  
Please choose entree number 4  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
4  
Please choose entree number 5  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
10  
Please choose entree number 6  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
5  
Please choose entree number 7  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
4  
Please choose entree number 8  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich

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7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
11
Please choose entree number 9
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
3
Please choose entree number 10
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
10
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
4
Choose the order to complete:
1: Table 10
1
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
3
Please choose the table for the order:
11: Table 11
11
Please choose entree number 1
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
7
Please choose entree number 2
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
9
Please choose entree number 3
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
```

```
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
12
Please choose entree number 4
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
8
Please choose entree number 5
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
2
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
1
Enter a name for the reservation: Sadie Levine
Enter the number of people in the party: 9
Enter the time for the reservation in HH::MM AM/PM: 09:30 AM
Please confirm the reservation:
Reservation Name: Sadie Levine
Reservation Time: 09:30 AM
Number in Party: 9
Is this information correct [Y]es, [N]o (make changes), [C]ancel? n
What do you want to change?
1. Name
2. Number of People
3. Time
4. Cancel
2
Enter the number of people in the party: 2
Please confirm the reservation:
Reservation Name: Sadie Levine
Reservation Time: 09:30 AM
Number in Party: 2
Is this information correct [Y]es, [N]o (make changes), [C]ancel? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
Choose the order to complete:
2: Table 11
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
Choose the reservation to check in
3: Zarah Silva - 03:00 PM, 9 people
4: Mario Hartley - 02:00 PM, 9 people
5: Gabriella Clements - 10:30 PM, 9 people
6: Sadie Levine - 09:30 AM, 2 people
3
Please assign a table:
9: 10 people
9
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
2
Choose the reservation to check in
4: Mario Hartley - 02:00 PM, 9 people
5: Gabriella Clements - 10:30 PM, 9 people
6: Sadie Levine - 09:30 AM, 2 people
```

```
6
Please assign a table:
1: 2 people
2: 2 people
3: 2 people
4: 2 people
5: 2 people
6: 2 people
7: 2 people
8: 2 people
12: 6 people
13: 6 people
14: 6 people
15: 4 people
16: 4 people
17: 4 people
18: 4 people
19: 4 people
20: 4 people
3
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
2
Choose the reservation to check in
4: Mario Hartley - 02:00 PM, 9 people
5: Gabriella Clements - 10:30 PM, 9 people
4
Please assign a table:
There are no open tables that will fit the party. Please complete some orders and have the customers pay their bills to free up tables.
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
5
Choose the order to calculate the bill:
1: Table 10
2: Table 11
1
Here is the bill for table 10
Fish and Chips - $77.00
Faux BLT - $42.00
Cheese Pizza - $59.00
Hamburger Sliders - $38.00
Falafel Wrap - $42.00
Veggie Sliders - $38.00
Hamburger Sliders - $38.00
Cheese Pizza - $59.00
Fried Chicken Sliders - $38.00
Falafel Wrap - $42.00
Subtotal: $473.00
Tip: $94.60
Tax: $47.30
Total: $614.90
Pay Bill? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
2
Choose the reservation to check in
4: Mario Hartley - 02:00 PM, 9 people
5: Gabriella Clements - 10:30 PM, 9 people
4
Please assign a table:
10: 10 people
10
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
5
Choose the order to calculate the bill:
2: Table 11
2
Here is the bill for table 11
BLT - $42.00
Chicken Burrito - $42.00
Pepperoni Pizza - $59.00
Faux BLT - $42.00
Hamburger - $45.00
Subtotal: $230.00
Tip: $46.00
Tax: $23.00
Total: $299.00
Pay Bill? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
```

```
3
Please choose the table for the order:
3: Table 3
9: Table 9
10: Table 10
3
Please choose entree number 1
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
12
Please choose entree number 2
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
13
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
3
Please choose the table for the order:
9: Table 9
10: Table 10
9
Please choose entree number 1
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
10
Please choose entree number 2
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
10
Please choose entree number 3
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
3
Please choose entree number 4
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
```



4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
3  
Please choose entree number 5  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
11  
Please choose entree number 6  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
9  
Please choose entree number 7  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
7  
Please choose entree number 8  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
6  
Please choose entree number 9  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
13  
Welcome to Messijoes  
1. Make Reservation  
2. Check-in Reservation  
3. Enter Order  
4. Complete Order  
5. Calculate and Pay Bill  
4  
Choose the order to complete:  
3: Table 3

```
4: Table 9
3
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
3
Please choose the table for the order:
10: Table 10
10
Please choose entree number 1
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
8
Please choose entree number 2
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
11
Please choose entree number 3
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
10
Please choose entree number 4
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
12
Please choose entree number 5
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
9
Please choose entree number 6
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
```

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9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
4
Please choose entree number 7
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
13
Please choose entree number 8
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
2
Please choose entree number 9
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
6
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
4
Choose the order to complete:
4: Table 9
5: Table 10
4
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
4
Choose the order to complete:
5: Table 10
5
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
5
Choose the order to calculate the bill:
3: Table 3
4: Table 9
5: Table 10
5
Here is the bill for table 10
Faux BLT - $42.00
Cheese Pizza - $59.00
Falafel Wrap - $42.00
Pepperoni Pizza - $59.00
Chicken Burrito - $42.00
Hamburger Sliders - $38.00
Faux Meat and Chips - $77.00
Hamburger - $45.00
Haddock Sandwich - $38.00
Subtotal: $442.00
Tip: $88.40
Tax: $44.20
```

```
Total: $574.60
Pay Bill? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
5
Choose the order to calculate the bill:
3: Table 3
4: Table 9
3
Here is the bill for table 3
Pepperoni Pizza - $59.00
Faux Meat and Chips - $77.00
Subtotal: $136.00
Tip: $27.20
Tax: $13.60
Total: $176.80
Pay Bill? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
5
Choose the order to calculate the bill:
4: Table 9
4
Here is the bill for table 9
Falafel Wrap - $42.00
Falafel Wrap - $42.00
Fried Chicken Sliders - $38.00
Fried Chicken Sliders - $38.00
Cheese Pizza - $59.00
Chicken Burrito - $42.00
BLT - $42.00
Haddock Sandwich - $38.00
Faux Meat and Chips - $77.00
Subtotal: $418.00
Tip: $83.60
Tax: $41.80
Total: $543.40
Pay Bill? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
2
Choose the reservation to check in
5: Gabriella Clements - 10:30 PM, 9 people
5
Please assign a table:
9: 10 people
10: 10 people
9
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
6. Close Restaurant
3
Please choose the table for the order:
9: Table 9
9
Please choose entree number 1
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
8
Please choose entree number 2
1: Veggie Burger
2: Hamburger
3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
```

14: Fish and Chips  
11  
Please choose entree number 3  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
10  
Please choose entree number 4  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
12  
Please choose entree number 5  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
9  
Please choose entree number 6  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
4  
Please choose entree number 7  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
13  
Please choose entree number 8  
1: Veggie Burger  
2: Hamburger  
3: Fried Chicken Sliders  
4: Hamburger Sliders  
5: Veggie Sliders  
6: Haddock Sandwich  
7: BLT  
8: Faux BLT  
9: Chicken Burrito  
10: Falafel Wrap  
11: Cheese Pizza  
12: Pepperoni Pizza  
13: Faux Meat and Chips  
14: Fish and Chips  
2  
Please choose entree number 9  
1: Veggie Burger  
2: Hamburger

```

3: Fried Chicken Sliders
4: Hamburger Sliders
5: Veggie Sliders
6: Haddock Sandwich
7: BLT
8: Faux BLT
9: Chicken Burrito
10: Falafel Wrap
11: Cheese Pizza
12: Pepperoni Pizza
13: Faux Meat and Chips
14: Fish and Chips
6
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
4
Choose the order to complete:
6: Table 9
6
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
5
Choose the order to calculate the bill:
6: Table 9
6
Here is the bill for table 9
Faux BLT - $42.00
Cheese Pizza - $59.00
Falafel Wrap - $42.00
Pepperoni Pizza - $59.00
Chicken Burrito - $42.00
Hamburger Sliders - $38.00
Faux Meat and Chips - $77.00
Hamburger - $45.00
Haddock Sandwich - $38.00
Subtotal: $442.00
Tip: $88.40
Tax: $44.20
Total: $574.60
Pay Bill? y
Welcome to Messijoes
1. Make Reservation
2. Check-in Reservation
3. Enter Order
4. Complete Order
5. Calculate and Pay Bill
6. Close Restaurant
6

```

#### Starter Code

[M08 Final Project Starter Code.zip \(https://ivylearn.ivytech.edu/courses/1230576/files/111890993?wrap=1\)](https://ivylearn.ivytech.edu/courses/1230576/files/111890993?wrap=1)   [\(https://ivylearn.ivytech.edu/courses/1230576/files/111890993/download?download\\_frd=1\)](https://ivylearn.ivytech.edu/courses/1230576/files/111890993/download?download_frd=1)

#### Submitting your Assignment

- Complete your assignment in a file named main.cpp.
- Submit main.cpp to CodeGrade