Coffee Kiosk Project

# Background

You will be able to work on your final project throughout the course. As we go through the class, you will learn the skills for the requirements of the final project.

You have the task to write an application for a new Customer Service Kiosk installed at a customer’s Coffee Shop. Customers will use the kiosk to purchase coffee and make direct payments. The following paragraphs contain all of the client’s requirements for the Kiosk program.

The client wants its customers to be able to choose to have coffee black or with additional items. Your program must ask customers to select between serving the coffee black or with cream. The next selection is plain, with sugar, or with a sweetener. Remember to ask if each cup is served with the coffee black or with cream and if it is plain, with sugar, or with a sweetener.

The Customer Service Kiosk system can produce multiple cups of coffee; however, it does have a limited amount of resource since it does not connect to an external supply system. The Customer Service Kiosk system has an option for frequent customers. Each frequent customer has a special code. When the application calculates the final cost, the customer can enter the special code to receive a ten percent discount.

# Requirements

1. Main Module
   1. New customer
      1. Capture data
         1. Name
            1. First
            2. Last
         2. Address
         3. City
         4. State
         5. zip code
         6. phone number
      2. Assign a generated customer number using an index the phone number
   2. Returning customer
      1. Validate customer number
      2. Display data
         1. Name
            1. First
            2. Last
         2. Address
         3. City
         4. State
         5. zip code
         6. phone number
2. Coffee Brew Type Module
   1. Create an array of brew types
   2. Set default brew type to “Black”
   3. Initialize beginning water supply level
3. Coffee Flavor Module
   1. Create an array of coffee flavors
   2. Set default flavor to “None”
   3. Initialize beginning supply level
4. Creamer Module
   1. Create an array of creamer flavors
   2. Set default flavor to “None”
   3. Initialize beginning supply level
5. Sweetener Module
   1. Create an array of sweetener types
   2. Set default to “None”
   3. Initialize beginning supply level
6. Menu Module
   1. Display current date/time
   2. Display coffee flavors listing
   3. Display coffee brew type listing
   4. Display creamers list
   5. Display sweeteners list
   6. Allow selection from lists
7. Input Module
   1. Create an array for cup size
   2. Create an array for prices
   3. Capture number of cups orders
   4. Warn customer when supply levels are below 10% capacity
   5. Do not accept additional orders when supplies are exhausted
   6. Allow customer to cancel order
   7. Allow customer to complete order
8. 10% Discount module
   1. Verify customer has correct discount code
   2. Apply 10% discount on pre-tax total of order
9. Tax modules
   1. Calculate county taxes
   2. Calculate state taxes
10. Final receipt module
    1. Calculate total sale
    2. Display items ordered
    3. Display total price
11. General
    1. Documentation required
    2. Make appropriate module calls
    3. Proper variable initialization
    4. Creamer dispenses at 2 oz
    5. Sweeteners dispense at 2 teaspoons.
    6. Water dispense determined by cup size

### U.S. Liquid Measurements

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Teaspoon | Tablespoon | Fluid ounce | Gill | Cup | Pint | Quart | Gallon |
| 1 teaspoon = | 1 | 1/3 | 1/6 | 1/24 | 1/48 | 1/96 | 1/192 | 1/768 |
| 1 tablespoon = | 3 | 1 | 1/2 | 1/8 | 1/16 | 1/32 | 1/64 | 1/256 |
| 1 fluid ounce = | 6 | 2 | 1 | 1/4 | 1/8 | 1/16 | 1/32 | 1/128 |
| 1 gill = | 24 | 8 | 4 | 1 | 1/2 | 1/4 | 1/8 | 1/32 |
| 1 cup = | 48 | 16 | 8 | 2 | 1 | 1/2 | 1/4 | 1/16 |
| 1 pint = | 96 | 32 | 16 | 4 | 2 | 1 | 1/2 | 1/8 |
| 1 quart = | 192 | 64 | 32 | 8 | 4 | 2 | 1 | 1/4 |
| 1 gallon = | 768 | 256 | 128 | 32 | 16 | 8 | 4 | 1 |