# CIS18A Course Project Part 1: Ramon Delgadillo

In Project Part 1, you will create a program for a type of small businesses. The program should incorporate all required elements as listed and described in Chapters 1 – 9. This program is intended to improve business process and operation flow.

**Business Types:**

Select from 1 of the following types of small businesses.

1. Restaurant (program for customers, server, chefs, staff operation).
2. Beauty salon/spa (program for customers or staff operation).
3. Coffee shop (program for customers, baristas, or staff operation).
4. Clothing retailer (program for customers, clerks, or staff operation).
5. Health food retailer (program for customers, clerks, or staff operation).
6. Gym with training programs (program for members, trainers or staff operation).
7. Office supply retailer (program for customers, clerks, or staff operation).
8. Furniture retailer (program for customers, clerks, or staff operation).
9. Shoes retailer (program for customers, clerks, or staff operation).
10. Mailing and shipping center (program for customers, clerks or staff operation).
11. Pet grooming service provider (program for clients, groomers or staff operation).
12. Pet supply retailer (program for customers, clerks or staff operation).
13. Smartphone prepaid retailer (program for customers, clerks or staff operation).
14. Urgent care provider (program for patients, doctors, nurses or staff operation).
15. Pharmacy (program for patients, pharmacists, clerks or staff operation).
16. Home repair/construction provider (program for clients, worker, or staff operation).
17. Medical marijuana dispensary (program for patients, clerks, or staff operation).
18. Business and resident cleaning service provider (program for clients or staff).
19. Car wash (program for customers or staff).
20. Gas station (program for customer, clerks, or staff operation).
21. Nursery (program for customer, clerks or staff operation).
22. Hardware store (program for customer, clerks or staff operation).
23. Bakery (program for customer, bakers or staff operation).
24. Ice-cream parlor (program for customer, clerks or staff operation).
25. Nutrition center (program for customer, clerks or staff operation).
26. Sporting goods retailer (program for customer, clerks or staff operation).

## Program Requirements:

1. Comments: Document your code, program purpose (5 points)
2. Appropriate data type (int, double, long, float…). (10 points)
3. Variables: name and use your variables accordingly, reference the variables, include in blocks. (10 points)
4. Switch statements (20 points):

* Adequate "Options" menu and selection.

1. Loops (If, If-else, While, Do-while, Range-based, for-loop) (20 points).
2. Operators: order precedence, functionality in arithmetic, logical and all parameters (20 points)
3. Class: incorporate at least 2 classes in the program (10 points).
4. Objects and methods: create objects, constructor and use methods to access these objects. (30 points).
5. Arrays: include an array, 1 or more dimension is acceptable. (20 points).
6. Control access to class members: (10 points)
7. Inheritance: allows one class to incorporate another class into its declaration using inheritance. (10 point)
8. Import packages: Include packages to streamline development. (10 points)
9. Implement interfaces: at least more than one interface in the program (20 points).
10. Efficiency and performance: consider design concepts into the program (5 points).

Total: 200 points

## Program Pseudocode and Documentation:

1. Select a business type.
2. Provide you company name (software company name).
3. Create a pseudocode for the program.
4. Create a short documentation describing the program purpose, function, and objectives. Minimum a page is required.

This document should explain the purpose of your program, targeted audience/type of users, and business functions.

* Who is it for?
* What is its purpose?
* What is its business function?
* What is its technical function?

Submission: Document contains flowchart, pseudocode, and program documentation.

Documentation:

This program is a menu for a coffee shop and it is intended for the staff operation to use as their own. The purpose of this program is to allow customers to order coffee from a menu with ease and without the hassle of waiting in line, as the customers will be able to order whatever they want from home.

The overall description of functionality:

* The program imports a scanner used for input within the program
* The customer is prompted with a menu with five options to choose from with their prices displayed as well.
* Next the program uses a while loop to confirm that the customer has made a valid option (0-4).
* The program then prints out “you ordered a “, then it will prompt the user on how many of that item do they want.
* Then, the program starts a switch statement based on the value that customer inputted.
* After the switch statement, the customer is then prompted if they would like anything else, yes or no. A while loop is implemented so if the customer choses yes, then they will be prompted with “please select an item.”
* If the customer inputs no, then they will be prompted with their total bill.
* I also accounted for input errors. For example, if the user attempts to place an order with an invalid input, it will display a prompt saying” The menu option is not available. Please enter your choice again.”

Psuedocode:

* Import scanner: import java.util.Scanner;
* Class definition: public class menu
* Displays prompt: ("Here is the menu");
* Displays menu to screen: String []menu= {"Caffe Latte","Caffe Americano","Cappuccino","Iced Coffee","Freshly Brewed Coffee"}
* Waits for user input; choice=input.nextInt(); then begins while loop (choice<0 || choice>4)
* If the input is not 0-4 then: System.out.println(choice+ " That menu option is not available. Please enter your choice again");
* If user inputs correct choice then prompt displays ("you ordered a "+menu[choice]);

("how many "+menu[choice]+" would you like?");

* Based on the value inputted a switch statement begins

switch(choice){

case(0):

price is Caffe Latte \* the amount inputted;

break;

case(1):

price is Caffe Americano \* the amount inputted;

break;

case(2):

price is Cappuccino \* the amount inputted;

break;

case(3):

price is Iced Coffee \* the amount inputted;

break;

case(4):

price is Freshly Brewed Coffee \* the amount inputted;

* The user is prompted with System.out.println("Would you like anything else? Please enter a y for yes and a n for no");
* If the user inputs y, then a while loop begins

While (input is “y”) then user is prompted with ("please select an item");

* User inputs a choice; choice=input.nextInt();
* User prompted with ("how many "+menu[choice]+ " do you want");
* Based on the value inputted a switch statement begins

switch(choice){

case(0):

price is Caffe Latte \* the amount inputted;

break;

case(1):

price is Caffe Americano \* the amount inputted;

break;

case(2):

price is Cappuccino \* the amount inputted;

break;

case(3):

price is Iced Coffee \* the amount inputted;

break;

case(4):

price is Freshly Brewed Coffee \* the amount inputted;

* User is prompted with ("Anything else?");
* If user inputs “n” then a prompt pops up displaying ("your total order comes to $"+price);

Flowchart:







