# CIS18A Course Project Part 1: Documentation and Program

In Project Part 1, you will create a program for a small business 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. Refer to the below information and requirement.

## Program Documentation and Pseudocode: 100 points

1. Provide you company name (software company name).

My company name is Brilliant Bagelry

7 Bagels: plain, chocolate, everything bagel, cereal bagel, nut bagel, cinnamon, jalepeno bagel, cheese

4 Cream Cheese: strawberry, fruit, spicy, regular

1. Create a pseudocode for the program.

See tutorials:

<https://youtu.be/D0qfR606tVo>

<https://youtu.be/PwGA4Lm8zuE>

//List of all items in shop worth for customer

Import scanner

Import arrays package

Class Bagelry1 {

//Declare varibles and initialize them ( we have 8 bagels)

Double Bagel1

Double Bagel2

Double Bagel3

Double Bagel4

Double Bagel5

Double Bagel6

Double Bagel7

Double Bagel8

//declare variables for the different cream cheeses (quantity 4)

(strawberry, fruit, spict, reg)

Double Straberrycc

Double fuitcc

Double spicycc

Double regcc

//Initialize cream cheeses with amount

// use constructor to initiliaze cc

Bagelry1() {

Strawberrycc=amount

Fruit=amount

Spicy=amount

Reg=amount

Interface amount { display question of quantitiy

Void display() “how many wud you like” }

Class Bagelry2 {

Greet the customer for choosing my shop

//transfer class 1 to classs 2 bagels

Bagelry1 eat= new bagelry2

eat.chocBagel=7.00;

eat.plainBagel = 5.00;

eat.everyBagel = 7.00;

eat.cerealBagel = 8.00;

eat.nutBagel = 6.00;

eat.cinnBagel= 6.00;

eat.jalapBagel= 7.00;

eat.cheeseBagel= 8.00;

double total = 0.00;

String bagel;

int quantitybagel;

int quantitycc;

String cc;

String customer;

double tip;

//Ask them what they want to order

Output welcome! What would you like to order

Switch(bagel)

Chobagel

This applied to all statements inside switch statement for menu options

In.scanner

Quantity ask

Total = bagel \* quantity

Strawbagel

Cheese

Jap

Every

Plain

Nut

Cinn

cereal

//ask customer to pick 1 cream cheese

Array= {cream cheese 1,…4}

This applied to all statements for menu options using array and if=else if statements

If (customer choose 1)

Then total += cc

Else if (customer chooses 2)

Then total +=cc…}

You have Variable amount of bagels; select up too varable amt of cream cheese

Print (how many cc would you like)

In.scanner

Total = (bagel\* quantity) + (cc\*quantity)

//ask customer for tip

Output (Great! Would you like to leave a tip?)

If (yes){

Then output “How much would you like to give”

In.scanner

Total += tip

Else

Total=total }

//Give the customer the total

Print: here is your total:

Bagel $

Cc $

Tip $

Total $$

Print Thank you for shopping with us!

Print Have a good day! Come again soon!

1. Create a short documentation describing the program purpose, function, and objectives. Minimum a page is required.

My business is a bagelry and is called Brilliant Bagelry! This shop is for everyone! People who desire food, anyone who enjoys bagels, and people who love breakfast or loves a snack of bagels! This shop is for all ages and simply to put a smile on the customer’s faces with the quality of my product.

The purpose of my business is to make society happy and secure. The people will be happy with my product of choice and will feel secure that they have food for anytime they want! With my shop and how it is all set up online, my program will benefit the society because they will always have a place to go for breakfast. It will also reduce waiting times for the customers, it will be fast and quick. This will be efficient way for the employees as well as the customers. This will help tremendously with COVID since no shops will be open, it will reduce a crowd, and be very fast and safe! To serve my customers with quality food and love is my main purpose of my business and with my program I will be able to do that. My shop is usually open and we have the option of online, however because of COVID, we are doing things through online which my program will help in and customers will stay happy and satisfied. As long as my product is selling and thee customers are happy, the purpose will be fulfilled. As all of our bagels and homemade cream cheese is sold, our customers will stay satisfied and again our purpose will have been fulfilled.

The bagelry’s business has many business functions. The consist of sale services and customer support services. It also consists of producing the bagels and producing the cream cheese. It also has a financial function associated with it. All of these functions get tied together and make up my business. The sale services comes from our sale of bagels and cream cheese and customer support becomes a function through our online ordering way as well as continue to listen to the customer and keep them happy. The production of bagels and production of cream cheese come into the production and labor business function because they get produced with the help of the employees (labor). The financial function associated with it comes from the money we make through the sales.

The bagelry’s technical function is to make sure all of the business functions can take place relating to technical terms. For example, my shop once in a while will continue to change up its menu so it will be more appealing to the public getting us more sales (business function). In technical terms, my business function will be carried out by first listing all of the items we have in our shop to sell and then set price values to it. After that we will bring the customer in and greet them. We will then ask what they would like to order and how many they would like to order. Then we will proceed to asking them about their choice of cream cheese. After that they will get their total cost and be given there items! Lastly we will give them a nice goodbye and thank them for shopping with us. All of the behind the scenes will be done by labor which is by the employees. There are many things that go into a business and this technical function is a very important part!

1. Select a business type.

My business type is a Bagelry which is similar to a coffee shop in operations!

1. Write a Java program for the selected business that fulfill the below requirements, then test the program prior to submission.

## Program Requirements: You will graded on these requirements (200 points)

* **Comments: Document your code, program purpose (15 points)**
* **Appropriate data type (int, double, long, float…). (10 points)**
* **Variables: name and use your variables accordingly, reference the variables, include in blocks. (10 points)**
* **Switch statements (10 points):**
* **Adequate "Options" menu and selection.**
* **Loops (If, If-else, While, Do-while, Range-based, for-loop) (20 points).**
* **Operators: order precedence, functionality in arithmetic, logical and all parameters (20 points)**
* **Class: incorporate at least 2 classes in the program (10 points).**
* **Objects and methods: create objects, constructor and use methods to access these objects. (30 points).**
* **Arrays: include an array, 1 or more dimension is acceptable. (20 points).**
* **Control access to class members: (10 points)**
* **Inheritance: allows one class to incorporate another class into its declaration using inheritance. (10 point)**
* **Import packages: Include packages to streamline development. (10 points)**
* **Implement interfaces: at least more than one interface in the program (20 points).**
* **Efficiency and performance: consider design concepts into the program (5 points).**

**Total: 200 points**

Project Part 1 submission: Documentation (pdf or .docx) and program file (.java)