**PROPOSAL**

List of group members :

|  |  |
| --- | --- |
| Name | Matric No. |
| CHE KHAIRUL AZRI BIN CHE ARIZAN | 2022465974 |
| MUHAMMAD HAZEEQ HAIKAL BIN ROSLAN | 2022676488 |
| SHAHMIR HAZIQ BIN SUHAIMI | 2022893296 |

Class of objects with attributes and methods :

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| Problem statement:  The proprietor of the “Kangar Food” is facing challenges in managing customer orders and tracking inventory in his restaurant. The lack of a systematic approach has led to difficulties in maintaining accurate records of food items and their respective quantities. This has further complicated the process of managing the restaurant’s inventory for the staff to keep track on. Therefore, our project aims to provide a comprehensive solution to fix all of these issues. The customer management system is directly linked to the inventory management system, ensuring that every customer order automatically process accordingly. This not only helps in maintaining an accurate count of the food items but also assists in tracking their prices, expiry dates, and net weights. The staff management system allows the owner and his employees to manage their own data, similar to the inventory management system, thereby ensuring smooth operations and efficient management of the restaurant.  The application will be able to :   1. Store customer information to data.txt including their username, password, birthdate, membership 2. When the user goes to the shop during their birthday they got special discount 3. If the user has membership, they also got special discount 4. Staff can set the price and quantity of the food 5. It is able to display total price after order has been made 6. Account class will be able to check if the account already existed during registration, find appropriate login information and check the strength of the password during registration   Class, attributes, method provided:   1. Class Food 2. **Attributes:** foodName,quantity,price,expiryDate,netWeight 3. **Method :** Setter,Getter,calculateTotalWeight(), afterSST(), calculateTotalPrice(), isMember(),isBirthday(), discountedPrice(),toString() 4. Class LinkedListCustom 5. **Attributes:** head,size,data,next 6. **Method:** LinkedListCustom(), getHead(), getSize(), setHead(), setSize(), insertAtFront(),   InsertAtBack(), insertAtPosition(), insertAtMiddle(), removeNode(), isEmpty(), display(),  Node(), getData(), getNext(), setData(), setNext(), toString()   1. Class QueueCustom      1. **Attributes:** head,size 2. **Method:**QueueCustom(), getHead(), getSize(), setHead(), setSize(), enqueue(), dequeue(), IsEmpty(), display()      1. Class Account 2. **Attributes:** username,password,birthdate,isMember 3. **Method:** Account(), getUsername(), setUsername(), getPassword(), setPassword(),   getBirthdate(), setBirthdate(), isMember(), setMember(),verify(),  register(),checkStrength(),toString()   1. Class FileHandling 2. **Attributes:** reader, writer 3. **Methods:** FileHandling(), write(), read(), open() 4. Class Staff 5. **Attributes:** username, password 6. **Methods:** Staff(), getUsername(), getPassword(), setUsername(), setPassword() |

List of processing:

1. Insert / Add data inside list or list node.

2. Remove / Delete data from current list or list node.

3. Search current data from the list or list node.

4. Update current data from the list or list node.

5. Calculate specific data from the list.

6. Generate random number for customer after order.

**GROUP PROJECT’S EVALUATION** **(Final Calculated Marks : 20%)**

According to the problem given by instructor solve the problem in full program as per requirement.

**Total Marks:**

Project’s proposal (10%)

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| --- | --- | --- | --- | --- | --- |
| **Tasks** | **0** | **1** | **2** | **Weight** | **Total** |
| Object’s class | The class propose could not be implemented and not relevant | Lack in some area, can be improved but relevant. | Well defined, can be easily implemented and relevant. | 5 | /10 |
| Processing 1 | Not achievable or below expectation. | Achievable but level of complexity is below expectation. | Achievable and acceptable level of complexity. | 5 | /10 |
| Processing 2 | Not achievable or below expectation. | Achievable but level of complexity is below expectation. | Achievable and acceptable level of complexity. | 5 | /10 |
| Processing 3 | Not achievable or below expectation. | Achievable but level of complexity is below expectation. | Achievable and acceptable level of complexity. | 5 | /10 |
| Processing 4 | Not achievable or below expectation. | Achievable but level of complexity is below expectation. | Achievable and acceptable level of complexity. | 5 | /10 |
| Processing 5 | Not achievable or below expectation. | Achievable but level of complexity is below expectation. | Achievable and acceptable level of complexity. | 5 | /10 |
| Data in input file | less than 10 records | less than 20 records | Sufficient with more than 20 records | 5 | /10 |
|  | | **TOTAL (70)** |  |  |  |