## GENERAL INFORMATION :

1. Please save the program in **another pen drive as your backup copy. Besides that, send the complete program(java codes) to my email address** [**oopsubject@gmail.com**](mailto:junaidasulaiman@gmail.com) **. The subject of your email is matric id\_section example CA09100\_C21 before 11.00 pm 1th September 2010.**
2. **Hardcopy of the program** must be submitted o your lecturer within 24 hours. On the top your hardcopy, please stated clearly your name, matric no and your section.
3. Please make sure that your program is free from error even though you cannot answer all the questions.
4. This HOT will carried out 20% of your final mark.

merdekabookstore

|  |
| --- |
| Receipt |
| - totalPrice : double  -discount:double  -currPoint:double |
| + calBookPrice(bk[]:Book) : double  + calmemberPoint(totalprice:double) : double  + calculateDisc(totalprice:double) : double  + displayReceiptInfo(c:Customer,bk[]:Book) |

|  |
| --- |
| Customer |
| - name : String  - address : String  - contactNo : String  -memberNo:String  -memberPoint:double |
| +Customer(name:String, address:String, contactNo:String,memberNo:String)  +setMemberPoint(memberPoint:double)  + getName() : String  + getAddress() : String  + getContactNo() : String  +getMemberNo():String  +getMemberPoint():double |

|  |
| --- |
| Book |
| -isbn:int  -title : String  - Price : double  - genre : String |
| + setBookInfo(isbn:int)  + getTitle() : String  + getPrice() : double  + getGenre() : String |

|  |
| --- |
| ProgramTester |
| bk[] :Book  cust : Customer  rc : Receipt |
| + main(String a[]):void |

**Instructions**

1. You need to create a program to develop the Merdekabookstore system for selling book and magazine. This system has 3 classes: 1)Customer, 2)Receipt, 3)Book and 4)ProgramTester as shown as UML Diagram above.
2. The Customer Class has included all customer information as a data member such as name, address and contact number, member number, member point and constructor, mutator and accessor as behavior.
3. The Book class contained all information of book and magazine. In this class you need to initialize the data member using the mutator method(setBookInfo(iS:int)) based on passing the ISBN value where:

|  |  |  |  |
| --- | --- | --- | --- |
| **ISBN** | **Title** | **Price(RM)** | **Genre** |
| 1112 | Object Oriented Programming | 89.99 | Book |
| 1113 | Software Engineering | 70.80 | Book |
| 1114 | C programming | 50.50 | Book |
| 2111 | Reader Digest | 33.39 | Magazine |
| 2112 | Programmer Magazine | 45.50 | Magazine |

1. The purpose of class Receipt is to store and display all information regarding Book and Magazine purchased by customer. In this class you need to calculate the total price for each purchasing by customer in ***calBookPrice*** method.
2. The discount will be given depending on the total price of purchasing by each customer as in Table 1.

|  |  |
| --- | --- |
| **total** | **discount** |
| RM10.00-RM59.99 | 0.01 |
| RM60.00-RM100.99 | 0.02 |
| RM101.00 above | 0.05 |

1. You need to determine the discount value in the ***calculateDisc*** method and find out the new total price of all purchasing based on following formula :

new total price = total price - discount

1. Based on the total price we can calculate the obtain point for each purchasing using following calculation:

currPoint=0.04\*total price

memberPoint=memberPoint+currPoint

1. In the ProgramTester class you need to create one customer and receipt object for classes Customer and Receipt. Moreover, create an array object of class Book in order to represent all book and magazine that purchasing by customers.
2. All input should be key in by user. The example input and output as shown as below:

**Sample Input**

|  |
| --- |
| Member No: A26455  Customer Name: Noordin Jadi  Address : 167 Jalan Sri Mahkota, Tmn Sri Mahkota Aman.  Contact No.:019-9549233  MemberPoint:10.00  Member No: A26456  Customer Name: Noorlin Hadi  Address : 165 Jalan Sri Mahkota, Tmn Sri Mahkota Aman.  Contact No.:019-9549234  MemberPoint:100.00 |

**Sample output**

|  |
| --- |
| Member No: A26455  Customer Name: Noordin Jadi  Address : 167 Jalan Sri Mahkota, Tmn Sri Mahkota Aman.  Contact No.:019-9549233  ISBN:1111  Title : Object Oriented Programming  Genre : Book  Price : 89.99  ISBN:1114  Title : C programming  Genre : Book  Price : 50.50  ISBN:2112  Title : Programmer Magazine  Genre : Magazine  Price : 45.50  Total Price: RM 185.99  Discount : RM 9.2995  New Total Price: 176.6905  MemberPoint:17.4396  Member No: A26456  Customer Name: Noorlin Hadi  Address : 165 Jalan Sri Mahkota, Tmn Sri Mahkota Aman.  Contact No.:019-9549234  MemberPoint:100.00  ISBN:1111  Title : Object Oriented Programming  Genre : Book  Price : 89.99  Total Price: RM 89.99  Discount : RM 1.7998  New Total Price: 88.1902  MemberPoint:103.5996 |