**Sheet #4**

Due Date : 14 / 11 / 2019

**Saudia Airlines permit each passenger to hold one bag. The maximum weight allowed for the bag depends on the class of the passenger which is: 30 KG for First Class (F), 25 KG for Business (B) and 20 KG for Economy (E). If the weight of the bag excesses the allowed one, the passenger should pay 10 SR for each kilogram. For the first class, if the total weight excess 50 KG, the passenger gets 5% discount.**

**Write a program that asks the user to enter his/her full name, Fursan Membership Number, passenger class (F, B or E) and bag weight. Your program should then calculate and print the bill with passenger’s information and amount due.**

**You should use the following methods in your program:**

* **calculate():** Your program will call one of the two overloaded methods to perform the following:

1. calculate(): this method will accept the passenger class and the bag weight and return the total amount to be paid.
2. calculate(): this method will be called to calculate the total amount if the passenger a first class passenger and his/her bag weight excesses 50 KG. So, it accepts the bag weight only and return the total amount to be paid.

* **printBill():** this method accepts passenger’s full name, Fursan Membership Number, passenger’s class (as a character) and amount due. It then capitalizes the first letter of both the first name and the last name and prints the bill as shown below:

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| \*\*\*\*\*\*\*SAUDIA AIRLINES\*\*\*\*\*\*\* Passenger Name: Noura Alahmad Membership Number: S1326 Class: First Total Charge: 237.5 SR \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |

* **capitalize():** this methods accepts passenger’s full name and returns it after capitalizing the first letter of both first name and last name.
* **isValidMembership():** this method accepts Fursan Membership Number and return true if it is valid or false otherwise. The number is valid if it is five characters long, the first character is a capital letter and the rest four characters are digits.
* **isValidClass():** this method accepts passenger’s class and returns true if it is either ‘F’, ‘B’ or ‘E’ or false otherwise.

**You need to validate both Fursan Membership Number and passenger’s class after reading them from user. If the input is incorrect, allow the user to re-enter it in the main.**