### Web Database

#### Assignment: 1

Design a class called "DOB" with the following functionalities:

- -[p]day
- -[p]month
- -[p]year
- +bool set(int d,int m,int y)//returns true if a valid date, false otherwise

Design a static class called "IDGENARATOR" with the following functionalities:

- -static int serial no
- +String generate()//this method will automatically generates an ID for an account the format will be "YYYY-MM-SSSSS".

example: if the serial number is 1 and date is september,2012 the auto gen ID will be "2012-09-00001". if the serial number is 102 and date is january,2013 the auto gen ID will be "2012-09-00102".

- \*\*\* please reset the serial no to 1 if the month is changed
- \*\*\* assume other variable if needed (you must need another one)

#### Help:

Use DateTime class

Use Now to get the current datetime from the system.

Design an <u>abstract</u> class called "**account**" with the following functionalities:

- +parameterized constructor
- +[p] [read only]name
- +[p] [read only]ID(auto generated)
- +[p] [read only]DOB (do not use system object)
- +[p] [read only]nominee
- +[p] [read only] [read only]double balance
- + <u>abstract</u> bool deposit(double amount)//if the amount can be successfully deposited to the balance return true, else false
- + <u>abstract</u> bool withdraw(double amount)//if the amount can be successfully withdraw from the balance return true, else false
- +void printAccount()//prints all the account info

Design a class called "**Debit**"(deposited money in bank) from "**Account**" with the following functionalities:

- +parameterized constructor
- +\_bool deposit(double amount)//if the amount can be successfully deposited to the balance return true, else false
- +\_bool withdraw(double amount)//if the amount can be successfully withdraw from the balance return true, else false
- +void printAccount()//prints all the account info
- \*\*\*debit account's max balance is 100000 and daily transaction limit is 20000

Design a class called "Credit"(withdraw money from bank) from "Account" with the following functionalities: //

- +parameterized constructor
- +\_bool deposit(double amount)//if the amount can be successfully deposited to the balance return true, else false
- +\_bool withdraw(double amount)//if the amount can be successfully withdraw from the balance return true, else false
- +void printAccount()//prints all the account info
- \*\*\*Credit account's min balance is -100000 and no upper limit, daily Cash withdraw limit is 20000

Design a class called "Savings" from "Account" with the following functionalities:

- +parameterized constructor
- +\_bool deposit(double amount)//if the amount can be successfully deposited to the balance return true, else false
- +\_bool withdraw(double amount)//if the amount can be successfully withdraw from the balance return true, else false
- +void printAccount()//prints all the account info

#### \*\*\*no limit

Design a class called "bank" with the following functionalities:

- -array of account of size 1000
- +void create\_account()//this method will take care of the user input for account creation
- +void deposit(String ID, amount)//this method will take care of the user input for deposit an amount to a specific account
  - \*\*\*please generate error msg is account cannot be found or other
- -void withdraw(String ID,ammount)//this method will take care of the user input for withdraw an amount from a specific account
  - \*\*\*please generate error msg is account cannot be found or other
- -void print (String ID)//prints an specific account details

# You may need several extra fields for your solution. You may can any type of change if necessary.

## **Deadline:**

Email: bijon\_sust@yahoo.com Subject: WDB\_Section\_Id Deadline: 2/4/2017

#### Instructions:

- First 10 students (who send email) will get bonus 2 marks.
- Copying assignment will carry -10 marks for all submission.
- All other students who can solve the assignment will get 1 mark bonus.