**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 januray,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 abstract 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

+ abstract bool deposit(double amount)//if the amount can be successfully deposited to the balance return true, else false

+ abstract 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.