Lab10_classesII(U)

OBJECT ORIENTED PROGRAMMING

BSCS-SPRING-2022

Tasks

Problem 1:

Define a class to represent a bank account named as BankAccount that includes the following members:

Private Data Members:

- **depositorName** of type string.
- **accountNumber** of type string
- **Balance** of type long

Public member functions:

- **void Initilaize(string dp_name, string acc_num, long balance)**
- **bool depositAmount(long amountToDeposite)**

  To deposit an amount

  Hint: you have to validate that amount to deposit is non-negative.
- **bool withdrawAmount(long amountToWithdraw)**

  To withdraw an amount after checking the balance. Return False if amount is less than withdrawl amount otherwise return True in case of successful transaction.
- **long getAmount()**

  To get balance in given accountNum.

Problem 2:

Write a class Date that represents a date consisting of a year, month, and day. A Date class should have the following methods:

- **Date(int year, int month, int day)**

  Constructs a new Date object to represent the given date.

- **int getDay()**

  Returns the day value of this date; for example, for the date 2006/07/22, returns 22.

- **int getMonth()**

  Returns the month value of this date; for example, for the date 2006/07/22, returns 7.

- **int getYear()**

  Returns the year value of this date; for example, for the date 2006/07/22, returns 2006.

- **String toString()**

  Returns a String representation of this date in year/month/day order, such as "2006/07/22".

Problem 3:

Add following functions to class Date:

- **void add(int &days)**

  Moves this Date object forward by the given number of days.

  hint:* you should decide on the basis of month and year that given month ends 30,31,28,29 days.

- **void add(int &month , int &days)**

  Moves this Date object forward by the given number of months and days. Months should be within 1 to 12 and days in 1 to 31.

  For Example Date 2003/12/31and add(1,29) =>Date will be 2004/02/29

Problem 4:

- **void add(Date & other)**

  Moves this Date object forward by the given Date.

- **void addWeeks(int &weeks)**

  Moves this Date object forward by the given number of seven-day weeks.

- **bool isLeapYear()**

  Returns true if the year of this date is a leap year. A leap year occurs every four years, except for multiples of 100 that are not multiples of 400. For example, 1956, 1844, 1600, and 2000 are leap years, but 1983, 2002, 1700, and 1900 are not.