



FAST

الذى علم بالقلم. علم الانسان ما لم يعلم.

National University of Computer and Emerging Sciences

DEPARTMENT OF COMPUTER SCIENCE

Object Oriented Programming-Lab

Lab 12 & 13 – Tasks(Home Work)



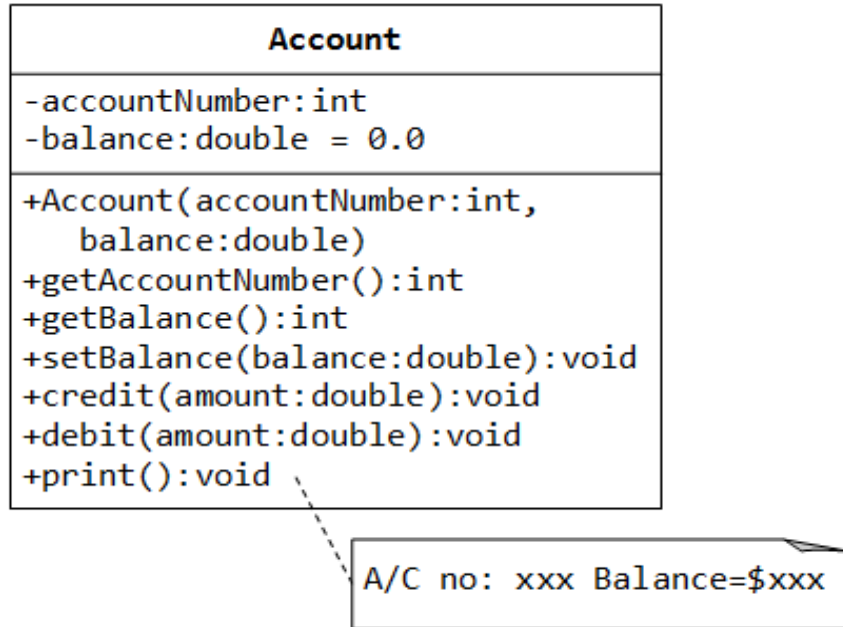
LAB 12 & 13 – TASKS (HOME WORK)

Due Date: 19-Jun-2021

- ☐ No late submissions will be entertained.
- ☐ All submissions should be made on Google Class Room.
- ☐ Emailed assignment will be marked as **0**.
- ☐ An individual/group may be assigned a **straight-forward 0** if the submitted assessed Home work is copied/cheated from another individual/group.
- ☐ Upload PDF File including all tasks code and output respectively.

Engr. Khuram Shahzad
(Instructor)

Task-01



A class called Account, which models a bank account, is designed as shown in the class diagram. It contains: Two private data members: accountNumber (int) and balance (double), which maintains the current account balance.

Public functions credit() and debit(), which adds or subtracts the given amount from the balance, respectively.

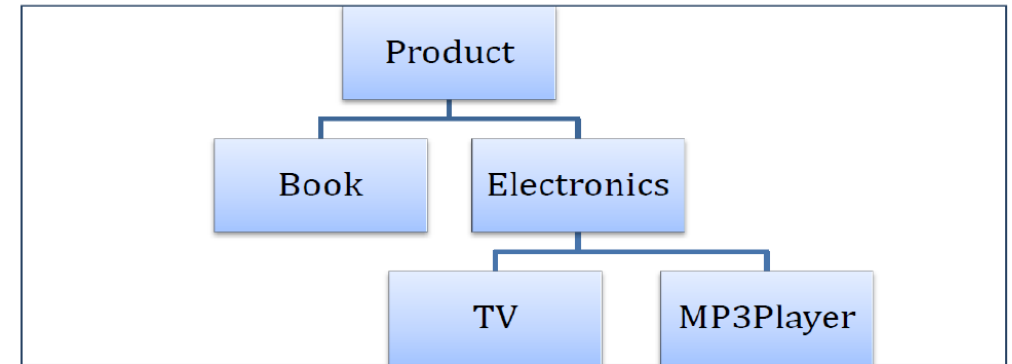
The debit() function shall print "amount withdrawn exceeds the current balance!" if amount is more than balance.

A public function print(), which shall print "A/C no: xxx Balance=xxx" (e.g., A/C no: 991234 Balance=\$88.88), with balance rounded to two decimal places.

Use the following main().

Task-02

We want to store some details about an online shop. This shop has several kinds of products. Each product is represented by a class. The products are categorized into Electronics and Books. The Electronics is further subdivided into MP3 Player and Television. The hierarchy is shown below:



For each product, system needs to store its regular price and discount. The system should provide a functionality to set or get a price for each product. For the products that are categorized as electronics, the name of the manufacturer should be stored. For MP3Players, system should store the color and capacity (in Giga Bytes). The system stores the size of each television. For each book, the following information is needed: Name of the book and Author's name. For each product, the system should calculate its discounted price. Apply object oriented programming concepts and implement this system in C++. Implement setter and getter functions for each class and all other required functions. Use the following main().

THANKS

