CSCI140 – C++ language and Objects

Lab Assignments

Spring 2020

Instructions for your lab report.

1. You need to create a cover page formatted as following:
   (Notes: The cover page needs to be typed and printed)

CSCI140 – C++ language and Objects

MT SAC College

CSCI140

Lab #: _____

Description: _____

_____

_____

Due Date: _____

Name: _____

Grade: _____

Notes: _____

CSCI110 – Fundamentals of Computer Science

Requirements for your lab reports

Your submission should include:

1. The cover page
2. The listing of the source code (See details shown below)
3. A screenshot of your program execution

The source code should be organized and presented as:

1. Prolog
    a. Program Description
    b. Author
    c. Date
    d. Input variables
    e. Process Flow
    f. Output variables
2. A listing of source code with internal comments

Programming requirements:

1. Your program needs to be user-friendly and easy to understand.

2. You need to follow the book's and my instructions to code your program – no deviation. If you have any questions, please let me know.

CSCI140 – C++ Language and Objects

Lab 1A

Resource: C++ How to program

Requirements (non-OOP): Please work on p2.29 on page 71.

Test cases: Please produce a console message based on the book's instructions.

Due date: TBD

Submission includes 1) cover page 2) source listing 3) screen shot of program execution.

CSCI140 – C++ Language and Objects

Lab 1B

Resource: C++ How to program

Requirements (non-OOP): Please work on p2.31 on page 72.

Test cases: Here is your test case.

- Total Miles: 140
- Cost per gallon: $3.25
- MPG: 35
- Parking fee: $10
- Tolls fee: $10

Total transportation cost per day: ?

Please produce the console message based on the book's instructions.

Due date: TBD

Submission includes 1) cover page 2) source listing 3) screen shot of program execution.

CSCI140 – C++ Language and Objects

Lab 1C

Resource: C++ How to program

Requirements (OOP): Please work on p3.9 on page 100.

Here is a list of test cases.

Test Cases:

1. Withdrawing $50 form Jane Green's account. Printing new balance.
2. Withdrawing $150 form Jane Green's account. Printing new balance.
3. Withdrawing $50 form John Blue's account. Printing new balance.
4. Withdrawing $150 form John Blue's account. Printing new balance.

Please produce the console message based on the book's instructions.

Notes: If insufficient fund, print a message. Don't deduct.

Due date: TBD

Submission includes 1) cover page 2) source listing 3) screen shot of program execution.

CSCI140 – C++ Language and Objects

Lab 2A

Resource: C++ How to program

Requirements (non-OOP): Please work on p4.19 on page 152. You need to use a while loop to implement this exercise and don't assume anything. You can create your own list of 10 numbers and you need to promote the user for these numbers. Make sure that you echo your input values. Be user-friendly!

Test cases: Please produce a console message based on the book's instructions.

Due date: TBD

Submission includes 1) cover page 2) source listing 3) screen shot of program execution.

CSCI140 – C++ Language and Objects

Lab 2B

Resource: C++ How to program

Requirements (OOP): Please work on p4.14 on page 150. You need to create a class “Account”. This class should contain the following methods and attributes. Be sure your project contain 3 files AccountTest.cpp, Account.cpp, and Account.h.

Methods:

- Constructor
- setBalance
- getBalance
- displayBalance
- setLimit
- getLimit
- displayLimit

Attributes

- account_number
- credit_limit
- balance

Test Cases:

- You need to create 3 accounts.
- Please produce the console message based on the book’s instructions.

Due date: TBD

Submission includes 1) cover page 2) source listing 3) screen shot of program execution.