



Capital University of Science and Technology

Department of Computer Science

CS1143 - Object Oriented Programming

ASSIGNMENT NO. 01

Semester: FALL 2024

Max Marks: 10

Instructors: Muhammad Zeeshan Sabir

Assigned Date: 10 Oct 2024

Due Date: 20 Oct 2024

Name:

Reg. No.

Instructions:

Upload the following in zip folder

1. q1.cpp
2. q2.cpp
3. assignment.pdf (PDF file) having your name and registraion and screenshots for the output from question 01 and Questions 2.

Question No.1

Write a class **Account** with following parameters: accountTitle (string), accountHolder (string), accountNumber(string), amount(double). Write public **getters** and **setters** for each class variable. You are also required to write following functions

1. withdrawAmount

The user should be able to withdraw amount from his/her account. The **withdrawAmount** member function

2. deductTax

At every withdrawal, The program should be able to deduct tax (2.5%) from user amount.

Write main() function where program should provide the following options to the user:

- a. create account
- b. set account title
- c. set account holder name
- d. set account number
- e. set amount
- f. get account title
- g. get account holder name
- h. get account number

- i. get amount
- j. withdraw amount
- k. deduct taxes

Question No.2

Create a rectangle class having length and width as parameter. Write getter/setter for each parameter. Write default constructor that should initialize the default value to the length and width.. Write member functions to calculate area and another function to calculate perimeter in class. Write a function to print the information regarding rectangle which include length, width, area and parameter.

Formula to calculate area = $0.5 * \text{length} * \text{width}$

Formula to calculate perimeter = $2 * \text{length} + 2 * \text{width}$