SLIIT
Discover Your Future

BSc (Hons) in Information Technology
Year 1

Tutorial 06

IT1050 – Object Oriented Concepts Semester 2, 2021

Objectives : Learn to create Classes, setters and Getters

Use your GitHub Repo and Repl.IT account and use the Instructions provided by your Instructors to complete the Tutorial. This week we will implement a class in C++. Use your Repl.IT account and use the Instructions provided by your Instructors to complete the Tutorial. All instructions are in the Repl.IT and GitHub Classrooms for the Tutorial Questions for Week 07. Please submit your solutions using Repl.IT itself.

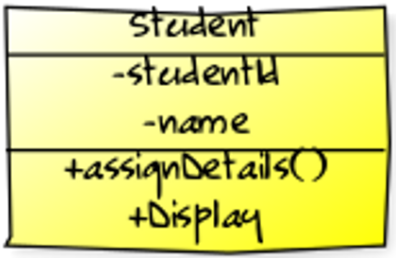
Exercise 0 – Setting up your Repo

Please see previous tutorials for instructions on setting up your GitHub repo and how to access your code using Repl.IT

Login to your GitHub account and use the following code to clone Tutorial 03 to your repo
https://classroom.github.com/a/7NbVd0mU

Students having an issue in connecting to Repl.IT from their GitHub Repo kindly read the instructions provided at the end of the Tutorial 06 sheet.

Exercise 1 - Student Class



Using the Student.h and Student.cpp Implement the `Student` class

In Student.h

1. Add the private properties `studentId` and `name` in the private section.
2. Add a method called `assignDetails()` to assign the `studentid` and `name`
3. Add a method called `display()` to display the `studentid` and `name`

```
class Student {
  // private section
  //    int studentId
  //    name <- 20 charcters

  // public section
  //    assignDetails() method declaration
  //    display() method declaration
};
```

In Student.cpp

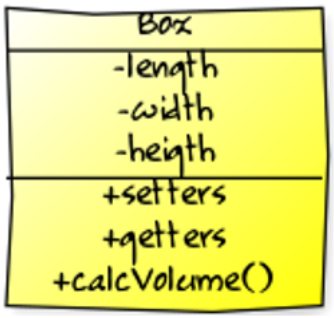
1. Implement the Methods `assignDetails()` and `display()`

```
#include "Student.h"
#include <iostream>

// Assign studentId and name
Student::assignDetails() {

}

// Display StudentId and Name
Student::display() {

}
```

In Excercise01.cpp

1. Do not change anything

Exercise 2 - Rectangle Class



Using the Box.h and Box.cpp Implement the Box class

In Box.h

1. Write the prototypes for the **setters** for `length`, `width` and `height`
2. Write the prototypes **getters** for `length`, `width` and `height`

```
class Box {
    private:
       int length;
       int width;
       int height;
    public:
       // write prototypes of setters for length, width and height
       // write prototypes of getters for length, width and height
    int calcVolume();
};
```

In Box.cpp

1. Implement the **setters** for `length`, `width` and `height`
2. Implement the **getters** for `length`, `width` and `height`
3. Implement the `calcVolume()` method

```
#include "Box.h"

// Implement setters and getters

// Implmenet the calcVolume() unction
int Box::calcVolume() {
}
```

In Exercise02.cpp

1. Create a `Box` type object called box1
2. Assign the keyboard input of `length`, `width` and `height` to the box1 object using setters
3. Do not change any other coding in the Exercise02.cpp

Finishing Up Tutorial

Use the Repl.IT version icon to commit your code. Goto GitHub and check if your code has been committed.

Exercise 0 (contd)

Students who have issues in connecting to Repl.IT when following instructions given in Exercise 0 in Page 1 can use the following link https://classroom.github.com/a/nbUVHEEV (please use this only if you have a problem with the first link)