SLIIT
Discover Your Future

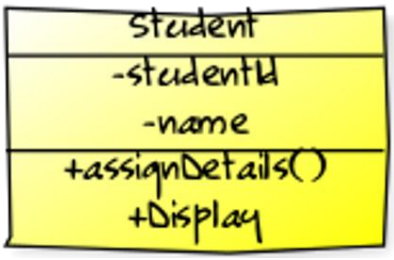
BSc (Hons) in Information Technology
Year 1

Tutorial 07

IT1050 - Object Oriented Concepts — Semester 1, 2024

Objectives : Learn to create Classes, setters and Getters

Exercise 1 - Student Class



Using the Student.h and Student.cpp Implement the Studentclass

In Student.h

1. Add the private properties studentIdand namein the private section.
2. Add a method called assignDetails()to assign the studentidand 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()

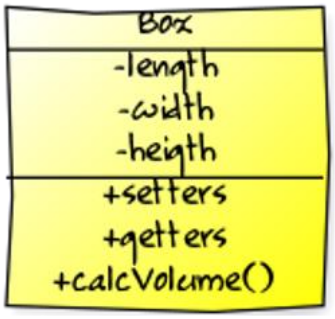
```
#include "Student.h"
#include <iostream>

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

}

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

}
```

In Excercise01.cpp

1. Create objects and call the methods to assign values and display them.

2. Create a Dynamic Object and practice to call the methods appropriately.

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, widthand height
2 Write the prototypes **getters** for length, widthand 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, widthand height
2. Implement the **getters** for length, widthand 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 Boxtype object called box1
2. Assign the keyboard input of length, widthand heightto the box1 object using setters