

# Object Oriented Programing Lab

BSCS(Fall 2015)

Lab # 6

Friday , april 1, 2016

**Instructions:** For support and guidance you can CONTACT ME AND TA's. **Discussion with peers is strictly prohibited.**

## Task #1:

Make a Rectangle class to compute area of a rectangle

Class should have:

Member variables width, length and area.

Member functions setWidth , setLength ,getWidth , getLength , and getArea.

Make all member functions to be INLINE functions.

Practice **Member wise assignment** (st2=st1) for any two objects of Rectangle class and display values of member variables before and after member wise assignment in Main().

## Task #2:

Make a class **StudentTestScores** to store a student's name and his test scores in a dynamically memory allocated array.

Class should have:

- Member variables **string studentName, double \*testScores, int numTestScores.**
- Member functions
  - **Constructor**
  - **Destructor**
  - **COPY CONSTRUCTOR**

- **createTestScoresArray**(Private member function to create an array of test scores and initialize it to 0)
- **setTestScore**(function sets a specific test score's value)
- **setStudentName**(Set the student's name)
- **getNumTestScores**(Get the number of test scores)
- **getTestScore**(Get a specific test score).

Display test scores of all the objects before and after calling copy constructor(**StudentTestScores st2=st1**) in **Main()**.

### **Task #3:**

Modify **Task #2** to include operator overloading. You have to overload “=” operator to perform

st2=st1;

st3=st2=st1;

(where st1,st2,st3 are objects of class)

Display values of member variables for all objects before and after using overloaded operator(HINT: Use THIS pointer.)