

**King Saud University**  
**College of Computer & Information Science**  
**CSC111 – Assignment 7**  
**All Sections**

---

## Instructions

1- You must submit your solution using Web-CAT grading system.

Web-CAT can be accessed from eclipse using the following IP address (single line):

```
http://10.131.240.28:8080/Web-CAT/WebObjects/Web-CAT.woa/wa/assignments/eclipse
```

2- Due date: Sunday Nov 1st at 11:59pm

3- You can discuss answers with your colleagues but **cheating is prohibited and there will be extreme consequences.**

## Question 1

Design a class named **MyRectangle** to represent a rectangle. The class contains:

- Two **double** data fields named **width** and **height** that specify the width and height of the rectangle.
- A **double** data field named **area** that specifies the area of the rectangle.
- A **double** data field named **perimeter** that specifies the perimeter of the rectangle.

- A method `printRectangle()` that prints a rectangle made of stars based on the width and height after casting them to `int` type. The method does not accept parameters or return a result.

Draw the UML diagram for the class and then implement the class. Write a test class `TestMyRectangle` with method `main` that does the following:

- Creates two `MyRectangle` objects.
- Assign width 4 and height 8 to the first object and the other with width 3.5 and height 35.9.
- Display the width, height, area, and perimeter of the first then the second rectangle.
- Displays the first rectangle using stars `*`.

## Sample Run

```
The area of a rectangle with width 4.0 and height 8.0 is 32.0
The perimeter of a rectangle is 24.0
The area of a rectangle with width 3.5 and height 35.9 is
125.64999999999999
The perimeter of a rectangle is 78.8

****
****
****
****
****
****
****
****
```