CS4013 Lab 1

The files created in this lab should be compressed in a zip/rar file and that single compressed file should be uploaded to Lab 1 assignment on Sulis.

1. Create a Java class named Rectangle (in a file called Rectangle.java) to represent the concept of a rectangle. The class contains:
    - Two double data fields named *width* and *height* that specify the width and height of the rectangle. The default values are 1 for both the width and height.
    - A no-arg constructor that creates a default rectangle.
    - A constructor that creates a rectangle with the specified width and height.
    - A method named getArea() that returns the area of the rectangle.
    - A method named getPerimeter() that returns the perimeter.

    Write a test program with the main method (in a file called TestRectangle.java) that creates two Rectangle objects, one with a width and height of 1 and another with a width of 4 and a height of 5.5. Display, to standard output, the width, height, area and perimeter of each rectangle. Take a screenshot of the output and save this file. Upload it as part of the lab submission.

2. Create a Java class named Stock (in a file called Stock.java) to represent the concept of a stock from the stock market. The class contains:
    - A string data field named *symbol* for the stock's symbol.
    - A string data field named *name* for the stock's name.
    - A double data field named previousClosingPrice that stores the closing stock price for the previous day.
    - A double data field named currentPrice that stores the stock price for the current time.
    - A constructor that creates a stock with the specified symbol and name.
    - A method named getChangePercent() that returns the percentage changed from the previousClosingPrice to the currentPrice.

    Write a test program with the main method (in a file called TestStock.java) that creates a Stock object with the Stock symbol LKSS, the name Limerick Software Solutions. The previous closing price should be set to 79.45 and the current price should be set to 79.65. Display, on standard output, the stock name and the percentage change in the price from the previous closing price to the current price. Take a screenshot of the output and save this file. Upload it as part of the lab submission.