MOCK ASSIGNMENT AND MARKING NOTES

COMP 1131

Mock Assignment and Marking Notes

The following example is to better understand the way assignments are marked in this course, in terms of the marking rubric:

Coding:	4 marks
Comments:	2 marks
Testing & doc:	2 marks

Assignment

Write a Java application that prompts the user for the length of the side of a square, then calculates and displays the perimeter and area. Include test exhibits showing your application with inputs of 0, 1, 10, and 12.34.

Mock Assignment and Marking Notes

CODING

Making a program that is functionally correct is only half of coding. The code needs to follow certain style and be readable.

Notice the standard indent for each set of { }

Blank lines are used to space out the program into sections

Square.java

```
//*********************************************************************
//  Square.java
//
//  Charlie Brown T00123456
//  COMP 1131 Assignment 0 Question 1
//  This application prompts the user for the length of the side of a
//  square, then calculates and displays the perimeter and area.
//*********************************************************************
import java.util.Scanner;

public class Square
{
   public static void main (String[] args)
   {
      // prompt the user and accept input of side
      Scanner keyboard = new Scanner (System.in);
      System.out.println ("Square Calculations");
      System.out.print ("Please enter the length of the side: ");
      double side = keyboard.nextDouble();

      // calculate perimeter as 4*s and area as s*s
      double perimeter = 4 * side;
      double area = side * side;

      // display the results
      System.out.println ("\nFor a Square with side " + side);
      System.out.println ("Perimeter is " + perimeter);
      System.out.println ("Area is " + area);
   }
}
```

Mock Assignment and Marking Notes

CODING

The class is named Square and is in file Square.java

Class names start with an uppercase letter and should have some meaning instead of just Assignment0

Variable names are descriptive e.g. side, perimeter, and area instead of just s, p, a

Variable names start with a lowercase letter

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Mock Assignment and Marking Notes

CODING

There is a suitable prompt for the input(s)

Captions for the result(s) that a user can make sense of

Square.java

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Mock Assignment and Marking Notes

COMMENTS

A ‘header’ comment block is considered a standard. It should contain things like the file name, your name and TRU id, which course / assignment it addresses, and a brief description of what the program does

There is a ‘one-liner’ for each of the sections to describe in English what the next few lines of code will do

Comments should add value to reading the code. Don’t comment the obvious like:
// declare a Scanner
Scanner keyboard = new Scanner(…);

Square.java

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Mock Assignment and Marking Notes

TESTING & doc

A large part of programming is proving that your code works as required. This is done by including exhibits of your program running with a variety of input. Each input might demonstrate a particular aspect of the program. For example the question asked for the values:

0	Often a problem value for calculations
1	Easy to predict the result for
10	Easy to predict the result for (but gives bigger results than 1)
12.34	Show it handles decimals yet can check with a calculator

Take a screen shot of the output panel (Alt+PrtScr) for each run and paste into an MS Word .docx. Crop the image if needed for space and readability.

Mock Assignment and Marking Notes

TESTING & doc

General Output

```
--------------------Configuration: <Default>----
Square Calculations
Please enter the length of the side: 0

For a Square with side 0.0
Perimeter is 0.0
Area is 0.0

Process completed.
```

General Output

```
--------------------Configuration: <Default>----
Square Calculations
Please enter the length of the side: 1

For a Square with side 1.0
Perimeter is 4.0
Area is 1.0

Process completed.
```

General Output

```
--------------------Configuration: <Default>----
Square Calculations
Please enter the length of the side: 10

For a Square with side 10.0
Perimeter is 40.0
Area is 100.0

Process completed.
```

General Output

```
--------------------Configuration: <Default>----
Square Calculations
Please enter the length of the side: 12.34

For a Square with side 12.34
Perimeter is 49.36
Area is 152.2756

Process completed.
```