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WIX1002 Fundamentals of Programming
Tutorial 2 Java Fundamental

1. Display the sentence Faculty of Computer Science and Information Technology.
    a. In one line using multiple Java statements

```
System.out.print("Faculty ");
System.out.print("of ");
System.out.print("Computer ");
System.out.print("Science ");
System.out.print("and ");
System.out.print("Information ");
System.out.print("Technology ");
```

    b. In multiple lines using one Java statement

```
System.out.println("Faculty\nof\nComputer\nScience\nand\nInformation\nTechnology");
```

2. Write a Java statement that print "SDN" - Software-defined networking

```
System.out.print(" \"SDN\" - Software-defined networking");
```

3. Correct the error for the following statements.
    a. System.Println("Java Programming");

```
System.out.println(“Java Programming”);
```

    b. System.in.println("Introduction to Java!")

```
System.out.println(“Introduction to Java!”);
```

    c. System.out.println("\t is the horizontal tab character");

```
System.out.println(“\\t is the horizontal tab character”);
```

    d. system.out.println("Java is case sensitive!");

```
System.out.println("Java is case sensitive!" );
```

4. Write statements for each of the following
    a. Declare a variable that used to store the value of a matric number.

```
String matric_number;
```

b. Declare a variable that used to store the value of π.

```
double pi = 3.1415;
```

c. Initialize a variable named M with the value set to false.

```
boolean M = false;
```

d. Initialize a variable named P with the value set to 8800000000.

```
long P = 8800000000L;
```

e. Initialize a variable named letter with the value set to U.

```
char letter = ‘U’;
```

f. Declare a constant variable named PRO. The value of the constant variable is Java.

```
final String PRO = “Java”;
```

5. Correct the error for the following statements.

a.

```
final double AMOUNT = "32.5";
AMOUNT += 10;
System.out.println("The amount is " + AMOUNT);
```

```
double AMOUNT = 32.5;
AMOUNT += 10;
System.out.println("The amount is " + AMOUNT);
```

b.

```
string chapter = 'Summary';
System.out.println(chapter);
```

```
String chapter = “Summary”;
System.out.println(chapter);
```

c.

```
int num;
++num++;
num1 = num;
```

```
int num, num1;
++num;
num1 = num;
```

d.

```
int num = 3000;
System.out.printf("%4.2f\n", num);
```

```
int num = 3000;
System.out.printf(“%4d\n”, num);
```

e.

```
String contact;
Scanner keyboard = new Scanner(System.out);
contact = keyboard.nextLine();
```

```
String contact;
Scanner keyboard = new Scanner(System.in);
contact = keyboard.nextLine();
```

6. Write a java program that print the circumference of a circle. The input of the program is diameter. Display the result in three decimal places. (Note π = Math.PI)

```
Enter diameter: 11.8
The circumference of the circle is : 37.071
```

```
import java.util.Scanner;
public class T2Q6 {
   public static void main(String[] args) {

      // Create a Scanner object to read input
      Scanner scanner = new Scanner(System.in);

      // Prompt Message
      System.out.print("Enter diameter: ");
      double diameter = scanner.nextDouble();

      double circumference = Math.PI * diameter;

      System.out.printf("The circumference of the circle is : %.3f\n" ,circumference);

      scanner.close();

   }

}
```

Output:

```
run:
Enter diameter: 11.8
The circumference of the circle is : 37.071
BUILD SUCCESSFUL (total time: 8 seconds)
```

7. Write a java program that converts inches to meters. (Given 1 inch equals to 2.54 centimeters). Print the output in two decimal places.

```
Enter value in inch: 20.17
20.17 inches = 0.51 meters
```

```
import java.util.Scanner;
public class T2Q7 {
   public static void main(String[] args) {

      // Create a Scanner object to read input
      Scanner scanner = new Scanner(System.in);

      // Prompt Message
      System.out.print("Enter value in inch: ");
      double inch = scanner.nextDouble();

      double meters = inch * 2.54 / 100;

      System.out.printf(inch + " inches = %.2f meters\n", meters);

      scanner.close();

   }
}
```

Output:

```
run:
Enter value in inch: 20.17
20.17 inches = 0.51 meters
BUILD SUCCESSFUL (total time: 2 seconds)
```