TECHNO MAIN SALTLAKE

Techno Main Salt Lake
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Department: CSE (AI & ML), CSE(DS)

Paper Name: Object Oriented Programming Lab (Day-1)

Paper Code: PCC-CS503

Stream: CSE(DS) 3rd Year 5th Semester

1. Write an application to print your name inside main().

2. Write an application to print your name in some other method (in some other class other than the one in which main() resides) and call it from main() by creating object.

3. Write an application to print your name in some other method (in some other class other than the one in which main() resides) and call it from main() without creating object.

4. Write an application that displays the numbers 1 to 4 on the same line, with each pair of adjacent numbers separated by one space. Write the program using the following techniques:
   a) Use one System.out.println statement.
   b) Use four System.out.print statements.
   c) Use one System.out.printf statement.

5. Write an application that asks the user to enter two integers obtains them from the user and prints their sum, product, difference and quotient (division).

6. Write an application that asks the user to enter two integers, obtains them from the user and displays the larger number followed by the words "is larger". If the numbers are equal, print the message "These numbers are equal."

7. Write an application that reads an integer and determines and prints whether it is odd or even.

8. Write an application that reads two integers, determines whether the first is a multiple of the second and prints the result.

9. Write an application that inputs from the user the radius of a circle as an integer and prints the circle's diameter, circumference and area using the floating-point value 3.14159 for π. This constant is more precise than the value 3.14159. Class Math is defined in package java.lang. Classes in that package are imported automatically, so you do not need to import class Math to use it.] Use the following formulas (*r* is the radius):

10. *diameter* = 2*r*
    circumference = 2π*r*
    area = πr^2
    Do not store the results of each calculation in a variable. Rather, specify each calculation as the value that will be output in a System.out.printf statement. Note that the values produced by the circumference and area calculations are floating-point numbers. Such values can be output with the format specifier %f in a System.out.printf statement.

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11. Write an application that inputs one number consisting of five digits from the user separates the number into its individual digits and prints the digits separated from one another by three spaces each. For example, if the user types in the number 42339, the program should print 4 2 3 3 9. Assume that the user enters the correct number of digits.

12. Write an application that calculates the squares and cubes of the numbers from 0 to 10 and prints the resulting values in table format, as shown below. [Note: This program does not require any input from the user.]

```
number  square  cube
0       0       0
1       1       1
2       4       8
3       9       27
4       16      64
5       25      125
6       36      216
7       49      343
8       64      512
9       81      729
10      100     1000
```

13. Write a program that inputs five numbers and determines and prints the number of negative numbers input, the number of positive numbers input and the number of zeros input.