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Write a Java program to find the factorial of a number.

Java Program to read number (entered by user)

Java Program to check if a number is positive or negative

Java Program to add two numbers

Java Program to Find ASCII value of a Character

Java Program to Multiply two Numbers

Java Program to Calculate Area of Triangle

Define a “Clock” class that does the following: -

a. Accept hours, minutes and seconds.

b. Check the validity numbers.

c. Set the time to AM/PM mode.

Use necessary constructors and methods to do the above task.

Design a class for a bank database the database should support the following operations.

1. Deposit a certain amount into an account,

2. Withdrawing a certain amount from an account,

3. Return a value specifying the amount (i.e. balance) in an amount.

Write a java program which initialization earning of an employee. The program should

calculate the income tax to be paid by the employee as per the criteria given below:

Slab rate IT rate

Upto Rs. 50,000 Nil

Upto Rs. 60,000 10% on additional amount

Upto Rs. 1,50,000 20% on additional amount

Above Rs. 1,50,000 30% on additional amount

We have to calculate the percentage of marks obtained in three subjects (each out of 100) by student

A and in four subjects (each out of 100) by student B.Create an abstract class 'Marks' with an abstract

method 'getPercentage'. It is inherited by two other classes 'A' and 'B' each having a method with the same

name which returns the percentage of the students. The constructor of student A takes the marks in three

subjects as its parameters and the marks in four subject as its parameters for student B. Create an object

for eac of the two classes and print the percentage of marks for both the students.

Create a class named 'PrintNumber' to print various numbers of different datatypes by creating different

methods with the same name 'printn' having a parameter for each datatype.

Create a class to print an integer and a character with two methods having the same name but different sequence

of the integer and the character parameters.For example, if the parameters of the first method are of the form

(int n, char c), then that of the second method will be of the form (char c, int n).

Create a class to print the area of a square and a rectangle. The class has two methods with the same name but

different number of parameters. The method for printing area of rectangle has two parameters which are length and

breadth respetively while the other method for printing area of square has one parameter which is side of square.

Create a class 'Student' with three data members which are name, age and address. The constructor of the class

assigns default values name as "unknown", age as '0' and address as "not available". It has two members with the

same name 'setInfo'. First method has two parameters for name and age and assigns the same whereas the second

method takes has three parameters which are assigned to name, age and address respectively. Print the name,

age and address of 10 students.

Hint - Use array of objects

Create a class 'Degree' having a method 'getDegree' that prints "I got a degree". It has two subclasses namely

'Undergraduate' and 'Postgraduate' each having a method with the same name that prints "I am an Undergraduate"

and "I am a Postgraduate" respectively. Call the method by creating an object of each of the three classes.

A boy has his money deposited $1000, $1500 and $2000 in banks-Bank A, Bank B and Bank C respectively. We have

to print the money deposited by him in a particular bank. Create a class 'Bank' with a method 'getBalance'

which returns 0. Make its three subclasses named 'BankA', 'BankB' and 'BankC' with a method with the same name

'getBalance' which returns the amount deposited in that particular bank. Call the method 'getBalance' by the

object of each of the three banks.

Write a Java program and compute the sum of the digits of an integer.

Write a Java program to compute the area of a hexagon.

Write a Java program to reverse a string

Write a Java program to print the odd numbers from 1 to 99. Prints one number per line

Write a Java program to accept a number and check the number is even or not. Prints 1 if the number is even or 0 if the number is odd.

Write a Java program to print numbers between 1 to 100 which are divisible by 3, 5 and by both.

Write a Java program to convert a string to an integer in Java

Write a Java program that accepts three integers from the user and return true if two or more of them (integers ) have the same rightmost digit. The integers are non-negative

Write a Java program to convert seconds to hour, minute and seconds.

Write a Java program to reverse a word.

Write a program to create an array list of colours.

**08-09-2020**

**SDLC**

**V-Model:**

**Input Artefact Phase Output Artefact**

BRD Req Analysis SRS/ User Acceptance Test Plan

SRS System Design HLD/System Design Doc/System Design Test plan

HLD Architecture Architecture Design Architecture Design Doc/ Integrated Test Plan

ADD Module Design DLD/ Unit Test plan

DLD Coding Software Code

**Verification**: - Static testing - If we are creating the Software in the right way.

**Validation:** - Dynamic Testing - If we are creating the right software.

**Unit Testing:**

Input: Code/ Unit Test Plan/ Unit Test Cases

Output: Unit Test Execution Report/Defect Report

**Integration Testing:**

Input: Unit Test Execution Report / Defect Report/ IT plan/ IT cases/Intergration Test Cases

Output: ITER/Def Report

**System Testing:**

Input: System Test Plan/ Integration Test Execution Report/ Def Report

Output: System Testing Execution Report

**User Acceptance Testing:**

Input: UATP/ UATC/ STER/ Def Report

Output: UATER/ Def Report

**Prototype Model:**

Prototype: - Demo Software which has only part of the functionality

Req -> Quick Design -> Build Prototype/Add to Prototype

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| |

Imp & Maint <- Refined Prototype <- User Evaluation

**Advantages:**

* Change in Requirement Possible
* Software Available early.
* Customer Satisfaction higher
* Reusable

**Dis-Advantages:**

* Can be time consuming if throw away Prototype.
* Does not handle risk occurance.