JAVA -Lab Sessions

# Assignment on Java Variables

1. Java Program to show the local variable declaration
2. Java Program to show the instance variable declaration



1. Java Program to show the static variable declaration.

# Assignment on Strings

1. Java Program to Concatenate Two Strings
2. Java Program to Remove special Characters from the Input String which are Present



1. Java Program to Swap given 2 numbers



1. Java Program to Remove All Adjacent Duplicates from String
2. Java Program to Reverse Each Word in a String



1. Java Program to Convert a String to an Integer Array
2. Java Program to Find the Largest and Smallest Word in a String
3. Java Program to Find the First Non-repeated Character in a String
4. Java Program to Count the Number of Unique Words
5. Java Program to Check if a Given String is Palindrome

10.Java Program to Check if Any Anagram of a String is Palindrome or Not

# Assignment on Java Constructors

1. Java Program to illustrate the default constructor



1. What are the advantages of using constructors.



1. Java Program to illustrate the parameterized constructor



1. What is constructor over loading. Write a java program to illustrate the same.



# Assignment on Java Access specifiers

1.What are the various access specifiers provided in Java. Explain in detail



2.  Write a Java program to illustrate private and public access specifiers.



# Assignment on Java operators, Looping and control statements and Data types

1.Write a program to check if number is even or odd



2. Write a program to check positive, negative or a zero



3. Write a program to convert meters to cms



4.Write a program to  make a Simple Calculator using Switch Case



5. Write a program to find the largest of three numbers



6.Write a program to find factorial of a number using loops



7.Write a program to print Fibonacci Series using for loop



8.Write a program to find sum of natural numbers using for loop



# Assignment on Arrays

1. Write a Java program to Compute Sum and Average of Array Elements



2. Write a Java program to Print an Array using For loop



3. Write a Java program to Print a Multidimensional Array

4. Write a Java program to concatenate Two Arrays using arraycopy

5. Java Program to Find Largest Two Numbers in an Array



6. Java Program to Find Second Largest and Smallest Elements in an Array

# Lab Session on Abstraction Encapsulation



1. Write a basic program which includes Abstract class and Abstract Methods

2. Find out the o/p of following program ?



|  |
| --- |
| **abstract** **class** X  {  **public** X()      {          System.out.println("ONE");      }    **abstract** **void** abstractMethod();  }    **class** Y **extends** X  {  **public** Y()      {          System.out.println("TWO");      }        @Override  **void** abstractMethod()      {          System.out.println("THREE");      }  }    **public** **class** MainClass  {  **public** **static** **void** main(String[] args)      {          X x = **new** Y();            x.abstractMethod();      }  } |

1. WAP to access private variable out side the class using getter and setter method



# Lab Session on Inheritance Polymorphism



1. Create a class with a method that prints "This is parent class" and its subclass with another method that prints "This is child class". Now, create an object for each of the class and call  
 method of parent class by object of parent class  
 method of child class by object of child class  
 method of parent class by object of child class

2. Create a class named 'Member' having the following members:  
Data members  
1 - Name  
2 - Age  
3 - Phone number  
4 - Address  
5 - Salary  
It also has a method named 'printSalary' which prints the salary of the members.  
Two classes 'Employee' and 'Manager' inherits the 'Member' class. The 'Employee' and 'Manager' classes have data members 'specialization' and 'department' respectively. Now, assign name, age, phone number, address and salary to an employee and a manager by making an object of both of these classes and print the same.

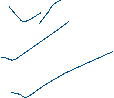
3. What are the different types of Polymorphism in Java?



4. How Polymorphism is implemented in Java?

# Lab Session on Try catch block.

1. [What are the Exception Handling Keywords in Java?](https://www.digitalocean.com/community/tutorials/java-exception-interview-questions-and-answers#java-exception-keywords)



2. WAP for Handling the exception using try catch block

3. Differentrun time exceptions in Java?

# Assignment on Collections

1**.** Write a Java program to create a new array list, add some colors (string) and print out the collection.

2.  Write a Java program to iterate through all elements in a array list.

3. Write a Java program to insert an element into the array list at the first position.

4.  Write a Java program to retrieve an element (at a specified index) from a given array list.

5.  Write a Java program to search an element in a array list

6. Write a Java program to append the specified element to the end of a linked list.

7. Write a Java program to iterate through all elements in a linked list

8. Write a Java program to iterate through all elements in a linked list starting at the specified position

9.  Write a Java program to iterate a linked list in reverse order.

10. Write a Java program to insert the specified element at the end of a linked list

# File Read

1. Write a code for excel read
2. Write a code for excel Write