Inheritance

**:** Demonstrate types of inheritance

* There are various types of inheritance in Java:

1. Single Inheritance:

In Single Inheritance, one class extends another class (one class only).

Class A{

**public** void methodA()

{

**System**.out.println("Base class method");

}}

Class B **extends** A{

**public** void methodB()

{

**System**.out.println("Child class method");

}

**public** **static** void main(**String** args[])

{

B obj = **new** B();

obj.methodA(); //calling super class method

obj.methodB(); //calling local method

}

}

1. Multiple Inheritance:

In Multiple Inheritance, one class extends more than one class. Java does not support multiple inheritance.

1. Multi-level Inheritance:

In Multi-level Inheritance, one class can inherit properties from a derived class. Hence, the derived class becomes the base class for the new class.

Class X{

**public** void methodX()

{

**System**.out.println("Class X method");

}

}

Class Y **extends** X{

**public** void methodY(){

**System**.out.println("class Y method");

}

}

Class Z **extends** Y{

**public** void methodZ()

{

**System**.out.println("class Z method");

}

**public** **static** void main(**String** args[])

{

Z obj = **new** Z();

obj.methodX(); //calling grand parent class method

obj.methodY(); //calling parent class method

obj.methodZ(); //calling local method

}

}

1. Hierarchical Inheritance:

In Hierarchical Inheritance, one class is inherited by many sub classes.

1. Hybrid Inheritance:

Hybrid inheritance is a combination of single and multiple inheritance.

**Note:**Java doesn't support hybrid/multiple inheritance.

**Step 2:** Pushing the code to your GitHub repositories

Open your command prompt and navigate to the folder where you have created your files.

cd java\_program

Initialize your repository using the following command:

git init

Add all the files to your git repository using the following command:

git add .

Commit the changes using the following command:

git commit . -m “Changes have been committed.”