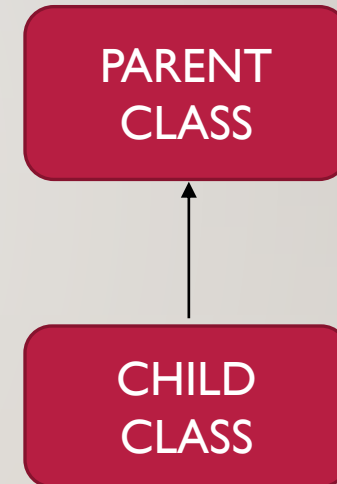# INHERITANCE IN JAVA

Inheritance

Inheritance is a mechanism in which one object acquires all the properties and behaviors of a parent object.

Syntax Of Inheritance :

```
Class Subclass extends Superclass

{

        //methods and fields

}
```
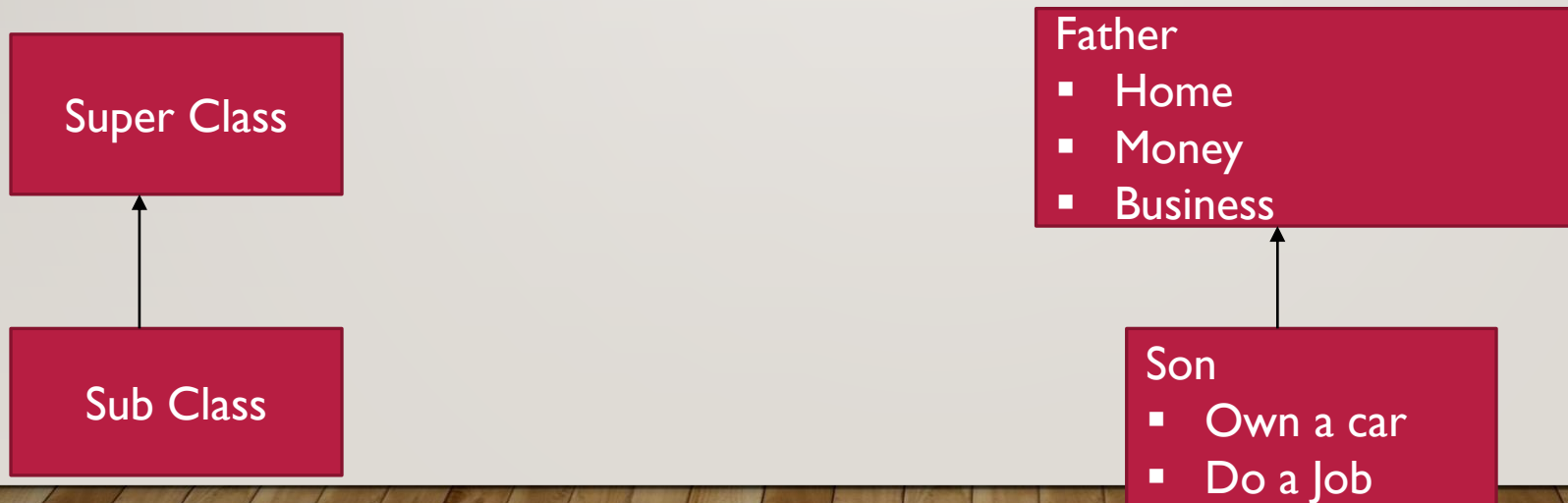
PARENT CLASS

CHILD CLASS

Super Class & Sub Class

The parent class is referred to as the Super class and the child class is called the Sub class.
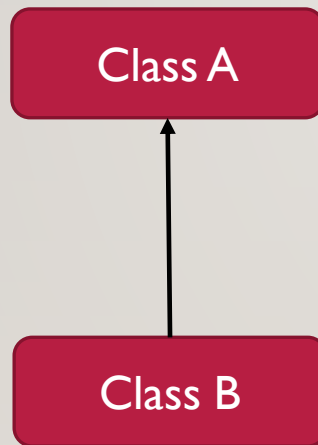
Super Class : Base Class, or Parent Class
Sub Class   : Derived Class, Extended Class, or Child Class

Super Class

Sub Class

Father
- Home
- Money
- Business

Son
- Own a car
- Do a Job

Types of inheritance
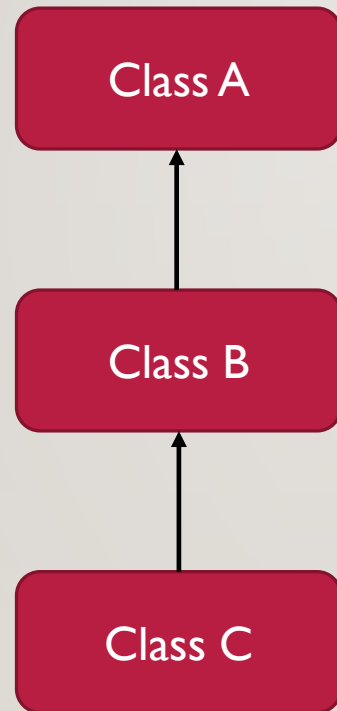
1- Single Inheritance

When a class inherits another class, it is known as a Single Inheritance.

Class A

Class B

```
public class A
{

      ……..

}
public class B extends A {

      ……..

}
```

2- Multilevel Inheritance
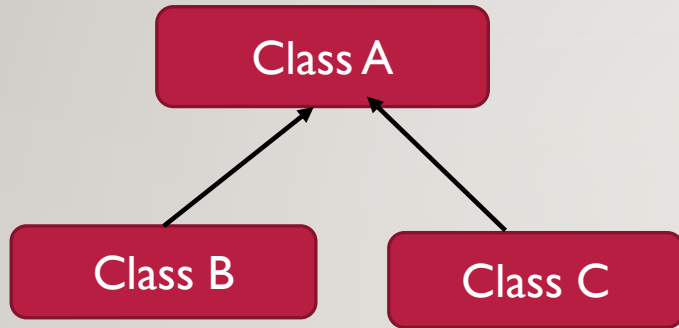
When there is a chain of inheritance, it is known as multilevel inheritance.

public class A
{…………}
public class B extends A
{……..}
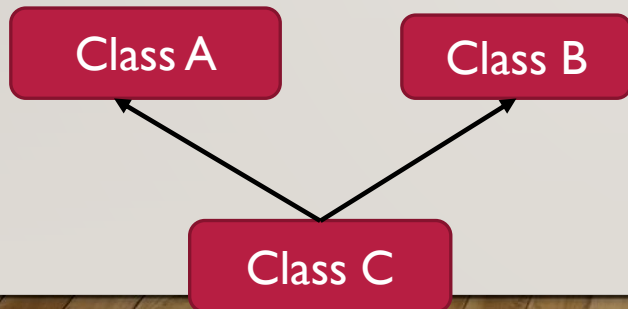public class C extends B
{………..}

3- Hierarchical Inheritance

When two or more classes inherits a single class, it is known as hierarchical inheritance.

public class A{………}
public class B extends A
{……..}
public class C extends B
{……..}

4- Multiple Inheritance

//Java does not support multiple inheritance

public class A{…….}
public class B{…….}
public class C extends A,B{………}