Q1. Explain Inheritance in java Programming?
Ans : Passing Properties from one class to another class is known as inheritance

Properties may be member data or member function

A class who gives the properties known as Parent / Super / Base class

A class who receives the properties are known as Sub / derived / Child class

In case of Inheritance Member Data or member function of Parent class should not be private

extends keyword to use inherit the class

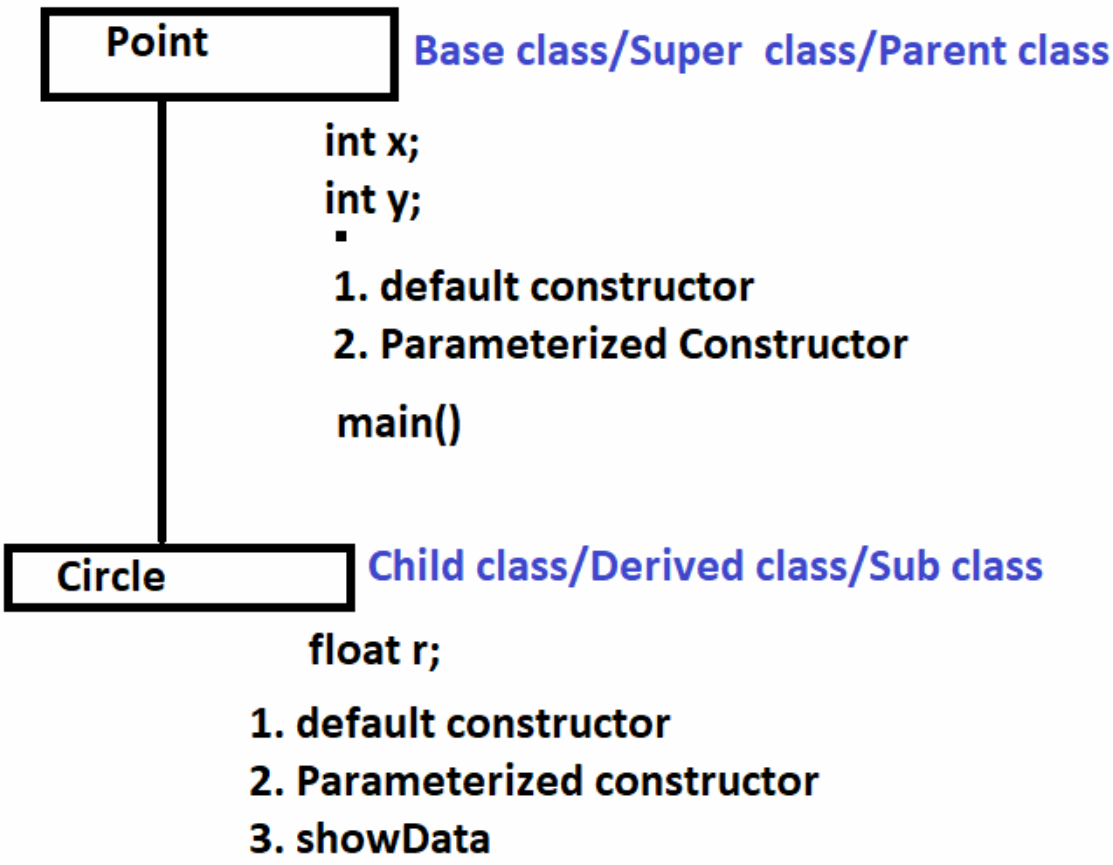
Java does not support multiple inheritance using class

Syntax:

```
class Parent{
//member data
//member function
}
```

```
class Child extends Parent{
//Member data
//Member Function

}
```



Q2. Explain this keyword in java Programming?
Ans:
This keyword represent current class objects.

When an instance variable name is same as local variable (formal parameter). this can be used to refer to the instance variable of a class explicitly

Example:

```
class Point{
public int x;
public int y;//instance variable

public Point(){
System.out.println("Point class Default Constructor is
called");
}

public Point(int x,int y){
this.x=x;
this.y=y;
System.out.printf("x=%d  Y=%d ",x,y);
System.out.println("Point class Parameterized Constructor
is called");
}

void showData(){
System.out.println("X_CO : "+x);
System.out.println("Y_CO : "+y);

}
public static void main(String args[]){
System.out.println("Point class Main Method");
Point p2=new Point(10,20);
p2.showData();
}
```

```
}
class Circle extends Point{



}
```

1. This keyword can be used to call current class method

Syntax:
this.methodName()

2. This keyword can be used to call current class Constructor

Syntax:
this()
this(10,20)

```
class Point{
public int x;
public int y;//instance variable

public Point(){
System.out.println("Point class Default Constructor is called");
```

```
}

public Point(int x,int y){
this();//to call current class default constructor
this.x=x;
this.y=y;

System.out.printf("\nx=%d  Y=%d ",x,y);
System.out.println("Point class Parameterized Constructor
is called");
}

void showData(){
System.out.println("X_CO : "+x);
System.out.println("Y_CO : "+y);

}
void hi(){
System.out.println("Hi... Method is Called");
this.showData();
int x=111;
int y=222;
System.out.printf("\nx=%d  Y=%d ",this.x,this.y);



}
public static void main(String args[]){
System.out.println("Point class Main Method");
```

```
Point p2=new Point(10,20);
p2.hi();
}

}
class Circle extends Point{




}
```
