Polymorphism ?

Developing a feature such that it can take more than one form is called as polymorphism.

1. Overriding: Here we inherit a method from parent class and then we override that method by creating a signature with same method name in the child class and modify the logic of inherited method

The main purpose of overriding is to modify the logic of inherited method

Example 1:

```
public class A {

	public void test(){
		System.out.println("From test");
	}

}
```

```
public class B extends A{

	public void test(){
		System.out.println("From test - class B");
	}
	public static void main(String[] args) {
		B b1 = new B();
		b1.test();
	}
}
```

Output:

From test - class B

Example 2:

```
public class A {


	public void test(){
		System.out.println("From test");
	}


}


public class B extends A{


	public void test(){
		System.out.println("From test - class B");
	}
	public static void main(String[] args) {
		B b1 = new B();
		b1.test();


		A a1 = new A();
		a1.test();
	}
}
```

Output:

From test - class B

From test

@Override:

This annotation checks whether overriding is happening.

Example 3:

```
public class A {
	public void test(){
		System.out.println("From test");
	}
}
public class B extends A{
	@Override
	public void test1(){//Error
		System.out.println("From test - class B");
	}
	public static void main(String[] args) {
		B b1 = new B();
		b1.test();
	}
}
```

Output: Error, because method names are not same

Example 4:

```
public class A {
	public void test1(){
```

```
		System.out.println("From test 1");
	}
	public void test2(){
		System.out.println("From test 2");
	}
}
public class B extends A{
	@Override
	public void test1(){
		System.out.println("From test 1 - class B");
	}
	public static void main(String[] args) {
		B b1 = new B();
		b1.test1();
		b1.test2();
	}
}
```

Output:

From test 1 - class B

From test 2

Example 5:

```
package bankingapp;

public class GoldAccount {

	public void noOfChqBooks(){
```

```
		System.out.println("2/year");
	}
	public void roi(){
		System.out.println("No int. paid");
	}
	public void onlineBanking(){
		System.out.println("yes");
	}

}
package bankingapp;

public class PlatinumAccount extends GoldAccount{
	public void noOfChqBooks(){
		System.out.println("Unlimited");
	}
	public void roi(){
		System.out.println("6% PA");
	}
	public static void main(String[] args) {
		PlatinumAccount p = new PlatinumAccount();
		p.noOfChqBooks();
		p.roi();
		p.onlineBanking();
		System.out.println("_________________");
		GoldAccount g = new GoldAccount();
		g.noOfChqBooks();
```

```
            g.roi();
            g.onlineBanking();
        }
}
```

Ouput:

Unlimited

6% PA

yes

_____

2/year

No int. paid

yes