# Core Java - 4 (Selenium)

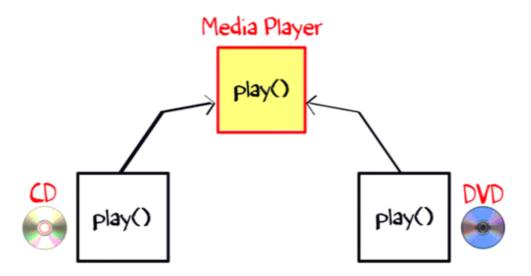
25 October 2018 08:20



Website: https://connect2tech.in/

Google Reviews: <a href="https://goo.gl/DEYjrg">https://goo.gl/DEYjrg</a>

### Interface in Java



- o Remote Control manufacturing Unit
- o Banking System

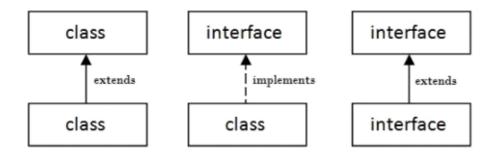
#### Where do we use Interface



Any system which needs the expected functionality, requires interfaces.

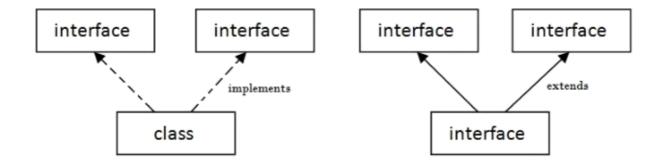
For example, 2 basic functions of a bank is deposit and withdraw. These two functions can be part of interfaces for banking application.

## Relationship between class and interface



## Multiple Inheritance in Java

If a class implements multiple interfaces, or an interface extends multiple interfaces, it is known as multiple inheritance.

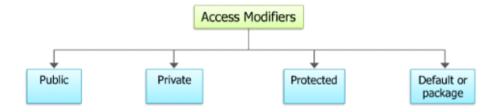


Multiple Inheritance in Java

## **Packages**

#### **Access Modifier**

There are 4 Access Modifiers:



These Scope Modifiers can be used for an attribute or for a method.

## **Exception Handling**

An exception is an event, which occurs during the execution of a program, that disrupts the normal flow of the program's instructions -- Oracle

It is often referred to as run-time error. Below are few of them:

```
Exception in thread "main" java.lang.ArithmeticException: / by zero at com.pack2.test.main(test.java:9)

Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: 3 at com.pack2.test.main(test.java:11)

Exception in thread "main" java.lang.NullPointerException at com.pack2.test.main(test.java:12)
```

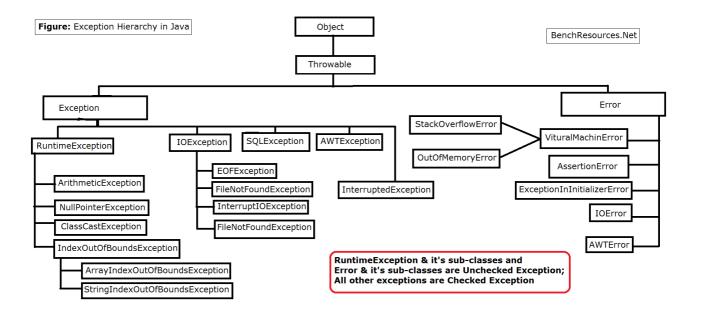
- → If there is a run time error then program is crashed and control comes out of the program.
- → This issue can be solved by exception handling.
- → Mainly, try, catch and finally are keywords for exception handling.

#### Multiple Catch Block

```
public class ExceptionHandling_demo {

   public static void main(String args[]) {
        int a = 250, b = 0;
        int c = a / b;
        System.out.println("Result is " + c);
    } catch (ArithmeticException e) {
        System.out.println("Exception is " + e);
    } catch (ArrayIndexOutOfBoundsException e) {
        System.out.println("Exception is " + e);
    } catch (Exception e) {
        System.out.println("Exception is " + e);
    } finally {
        System.out.println("In the finally block...");
    }
}
```

#### **Exception Hierarchy**



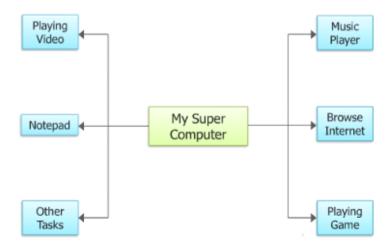
#### **Nested Try Catch**

#### **Checked and Unchecked Exception**

#### Throw and Throws Keywords

## **Threading**

Every computer has multiple processes running at a time.



Every Application has multiple sub-processes running at a time.



## Process V/s Thread

## Multi-Threading

In Java, a thread can be implemented in two ways:

- ightarrow extending from a thread class
- → implementing runnable interface