

LISKOV'S (Rules of method Overriding)

- 1) We can have exception in Parent class method & not in child
i.e. If the parent class method throws an exception then the child class
overriding method may throw the same exception or may not
throw any exception

ex:

```

class Parent {
    public void play() throws IndexOutOfBoundsException {
        // ...
    }
}
    
```

```

class Child extends Parent {
    public void play() {
        // ...
    }
}
    
```

throws IndexOutOfBoundsException

- 2) The overridden method in the child class can throw a different exception
when compared to parent class method. provided between the exception there is
IS-A relationship [parent exception should be "in parent class, Child Exception should
be of child of parent type in parent class]

ex:

```

class Parent {
    public void play() throws IOException {
        // ...
    }
}
class Child extends Parent {
    public void play() throws FileNotFoundException {
        // ...
    }
}
    
```

Object PC

↑

Throwable PC

↑

Exception PC

↑

IOException PC

↑

FileNotFoundException PC

FileNotFoundException

↑

IOException

↑

IOException

↑

IOException

P-C

↑

P class

↑

Child

- 3) The overridden method in child class can throw different exception
even though **IS-A** relationship doesn't exist. provided b/w both exceptions are
of runtime Exception (unchecked Exception)

ex:

class Parent {

public void play() throws NullPointerException {

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}

}

class Child extends Parent {

public void play() throws ArithmeticException {

}

