



Sri  
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**SAIRAM**  
DIGITAL RESOURCES



**CS8392**

**OBJECT ORIENTED PROGRAMMING**  
(Common to CSE, EEE, EIE, ICE, IT)

**Sairam**  
INSTITUTIONS



## UNIT NO 3

### 3. EXCEPTION HANDLING AND I/O

#### 3.4 Creating Own Exceptions

**COMPUTER SCIENCE & ENGINEERING**



## User Defined Exceptions

- Java custom exceptions are used to customize the exception according to user need.
- Using the custom or user defined exception, the user can have their own exception and message,
- A constructor can be defined for custom exception sub class, which extends Exception class
- The toString() method can be overridden to display the customized message.
- The Exception class does not define any methods of its own. It inherits those methods provided by Throwable.
- All exceptions, including the custom exceptions, have the methods defined by Throwable available to them.

## User Defined Exception - Example

```
import java.util.*;
class MarkException extends Exception {
    MarkException(String s) {
        super(s);
    }
}
class Test
{
    static void validate(int mark)throws MarkException {
        if(mark<0 && mark>100)
            throw new MarkException("not valid");
        else
            System.out.println("Valid Mark");
    }
    public static void main(String args[]) {
        try {
            validate(93);
        }
    }
}
```

```
catch(Exception m) {
    System.out.println("Exception occurred: "+m); }
    System.out.println("rest of the code...");
}
}
```

**Output:**

Exception occurred: MarkException:Valid  
rest of the code...

## User Defined Exception - Example

```
import java.util.*;
class MyException extends Exception {
    MyException(String s) {
        super(s);
    }
}
class Test {
    static void sum(int a,int b) throws MyException {
        if(a<0)
        {
            throw new MyException("first value is less than zero");
        }
        else
        {
            System.out.println(a+b);
        }
    }
}
```

```
public static void main(String[] args) {
    try {
        sum(-10, 10);
    }
    catch(MyException me) {
        System.out.println(me);
    }
}
```

## Video Link

<https://www.youtube.com/watch?v=fsqo7Z4eKE4>

*Sairam*