**Throw and Throws**

**Throw-**

The throw keyword is used to transfer the exception to someone else.

Example:

* throw new ArithmeticException ();

**Throws-**

Throws keyword is used to declare the exception with method.

Example-

void x1()throws IOException{

    x2();

}

What is the difference between Checked Exception and Unchecked Exception keyword? (Self-assignment)

What is the difference between throw and throws? (Self-assignment)

**How to create the custom exception in java**

We can create our own Exception that is known as custom exception or user-defined exception.

By the help of custom exception, you can have your own exception and message.

**Example-1- Scenario**

Sometimes it is required to develop meaningful exceptions based on application requirements. For example suppose you have one savings account in SBI Bank and you have 50000 in your account. Suppose you attempted to withdraw 60000 from your account. In java you can handle. You need to display some error message related to insufficient fund.

**Steps to create the user defined exception**

1. Create the new class.
2. The user defined exception class must extend from java.lang.Exception or java.lang.RunTimeException class.
3. While creating custom exception, prefer to create an unchecked, Runtime exception than a checked exception.
4. Every user defined exception class in which parametrized Constructor must called parametrized Constructor of either java.lang.Exception or java.lang.RunTimeException class by using super(string parameter always).

**package** com.velocity;

**public** **class** InsufficientFundException **extends** RuntimeException {

**private** String message;

**public** InsufficientFundException(String message) {

//this.message = message;

**super**(message);

}

}

**package** com.velocity;

**public** **class** Account {

**private** **int** balance = 3000;

**public** **int** balance() {

**return** balance;

}

**public** **void** withdraw(**int** amount) {

**if** (amount > balance) {

**throw** **new** InsufficientFundException("Insufficient balance in your account..");

}

balance = balance - amount;

}

}

**package** com.velocity;

**public** **class** MainTest {

**public** **static** **void** main(String[] args) {

Account account = **new** Account();

System.***out***.println("Current balance : " + account.balance());

account.withdraw(3500);

System.***out***.println("Current balance : " + account.balance());

}

}

**Example-2**

**package** com.test;

**class** Test **extends** Exception {

**public** Test(String s) {

**super**(s);

}

}

**package** com.test;

**public** **class** Test1 {

**public** **static** **void** main(String[] args) {

**try** {

**throw** **new** Test("Invalid input");

} **catch** (Exception e) {

e.getMessage();

}

}

}