# Custom Exceptions/User Defined Exceptions:

* Custom Exceptions are the exceptions,which would be defined by the developers as per their application requirements.
* If we want to define user defined exceptions then we have to use the following steps:

1.Define User defined Exception class:

To declare user-defined Exception class,we have to take a user-defined class,which must be extended from java.lang.Exception class.

Class MyException extends Exception

{

}

2.Declare a String parametrized constructor in User-Defined Exception class and access String parametrized super class constructor by using "super" keyword:

class MyException extends Exception{

MyException(String err\_Msg){

super(err\_Msg);

}}

3.Create and Rise exception in Java application as per the application requirement:

try{

throw new MyException("My Custom Exception");

}

catch(MyException me){

me.printStackTrace();

}

**CODING EXAMPLE OF CUSTOM EXCEPTIONS:**

class InsufficientFundsException extends Exception

{

InsufficientFundsException(String err\_Msg)

{

super(err\_Msg);

}

}

class Account

{

String accNo;

String accName;

String accType;

int balance;

Account(String accNo, String accName, String accType, int balance)

{

this.accNo=accNo;

this.accName=accName;

this.accType=accType;

this.balance=balance;

}

}

class Transaction

{

public void withdraw(Account acc, int wd\_Amt)

{

try

{

System.out.println("Transaction Details");

System.out.println("-------------------------");

System.out.println("Account Number :"+acc.accNo);

System.out.println("Account Name :"+acc.accName);

System.out.println("Account Type :"+acc.accType);

System.out.println("Transaction Type :WITHDRAW");

System.out.println("Withdraw Amount :"+wd\_Amt);

if(acc.balance>wd\_Amt)

{

acc.balance=acc.balance-wd\_Amt;

System.out.println("Total Balance :"+acc.balance);

System.out.println("Transaction Status:SUCCESS");

}

else

{

System.out.println("Total Balance :"+acc.balance);

System.out.println("Transaction Status:FAILURE");

throw new InsufficientFundsException("Funds are not Sufficient in your Account, please enter valid Withdraw Amout");

}

}

catch (InsufficientFundsException e)

{

System.out.println(e.getMessage());

}

finally

{

System.out.println("\*\*\*\*\*\*\*\*\*\*ThanQ, Visit Again\*\*\*\*\*\*\*\*\*");

}

}

}

class Test

{

public static void main(String[] args)

{

Account acc1=new Account("abc123", "KHURANA", "Savings", 10000); Transaction tx1=new Transaction(); tx1.withdraw(acc1, 5000);

System.out.println();

Account acc2=new Account("xyz123", "HIMANSHU", "Savings", 10000); Transaction tx2=new Transaction(); tx2.withdraw(acc2, 15000);

}

}

**ASSIGNMENT: TRY THE ABOVE CODE WITH SETTERS AND GETTERS in ACCOUNT class.**