GenericException.java

Output:

```
C:\Windows\system32\cmd.exe

Error in the code

Exception: / by zero

Press any key to continue . . .
```

NumFormExcp.java (Without Exception Handling)

```
class NumFormExcp
{
    public static void main(String args[ ])
    {
        String str1 = new String("abc123");
        int num1 = Integer.parseInt(str1); //converts string to number
        System.out.println (num1);
    }
}
```

Output:

```
Exception in thread "main" java.lang.NumberFormatException: For input string: "a^bc123"
bc123"
java:48)
java:48)
at java.lang.Integer.parseInt(Integer.java:447)
at java.lang.Integer.parseInt(Integer.java:497)
at Java.lang.Integer.parseInt(Integer.java:497)
at NumFormExcp.main(NumFormExcp.java:8)
Press any key to continue . . . _
```

NumFormExcp.java (With Exception Handling)

```
class NumFormExcp
{
    public static void main(String args[])
    {
        String str1 = new String("abc123");
        try{
            int num1 = Integer.parseInt(str1); //converts string to number
            System.out.println (num1);
            }
        catch(NumberFormatException NFE){
                System.out.println ("You have problem in data formatting.");
            }
    }
}
```

Output:

```
C:\Windows\system32\cmd.exe
You have problem in data formatting.
Press any key to continue . . . _
```

excep.java

(ArryIndexOutOfBound Exception)

```
class excep
{
    public static void main(String args[])
    {
        try {
            int array[] = new int[100];
            array[100] = 100;
        } catch (ArrayIndexOutOfBoundsException e) {
            System.out.println("exception: " + e);
        }
    }
}
```

Output:

```
c:\Windows\system32\cmd.exe
exception: java.lang.ArrayIndexOutOfBoundsException: 100
Press any key to continue . . . _
```

Define Custom Exception

ExceptionExample.java

```
import java.io.*;
import java.util.*;
class NonIntResException extends Exception
     private int n;
    private int d;
    public NonIntResException (int num, int den)
     \{ n = num; d = den; \}
    public String toString()
     {return "Result of " + n + " / " + d + " is non-integer";}
public class ExceptionExample
    public static void main(String [] args)
         int numer[] = \{4, 6, 0, 1\};
int denom[] = \{2, 3, 7, 8\};
          for (int i = 0; i < 4; i++)
              try
                   if ( (numer[i]%denom[i]) != 0) throw new NonIntResException (numer[i], denom[i]);
    System.out.println( numer[i] + " / " + denom[i] + " = " + numer[i]/denom[i]);
              catch (NonIntResException ex)
                   System.out.println(ex);
         }
    }
```

Output:

```
C:\Windows\system32\cmd.exe

4 / 2 = 2

6 / 3 = 2

Ø / 7 = Ø

Result of 1 / 8 is non-integer

Press any key to continue . . .
```

Customexception.java

```
class NewException extends Exception
    int value;
   NewException(int v)
        value = v;
   public String toString()
        return "NewException " + value;
}
class customexception
   public static void main(String args[])
        try {
            doWork(3);
            doWork(2);
            doWork(1);
            doWork(0);
        catch (NewException e) {
            System.out.println("Exception: " + e);
    1
   static void doWork(int value) throws NewException
        if(value == 0) { throw new NewException(value); }
        else {System.out.println("No problem."); }
    }
}
```

Output:

```
C:\Windows\system32\cmd.exe

No problem.
No problem.
No problem.
Exception: NewException Ø
Press any key to continue . . .
```