Practical No. 6

```
package Prac6;
import java.util.*;

class Exception
{
	Scanner sc = new Scanner(System.in);

	void Arithmetic()
	{
		System.out.println("\n**Perform Division**");
		System.out.println("Enter First Number : ");
		int num1 = sc.nextInt();
		System.out.println("Enter Second Number : ");
		int num2 = sc.nextInt();

		try {
			int ans = num1/num2;
			System.out.println("The quotient is : "+ans);
		}

		catch(ArithmeticException e)
		{
			System.out.println(e);
			System.out.println("Divisible by 0 is Invalid");
		}
	}

	void NumberFormat()
	{
		System.out.println("\n**Perform Division**");
		System.out.println("Enter First Number : ");
		String num1 = sc.next();
		System.out.println("Enter Second Number : ");
		String num2 = sc.next();

		try {
			System.out.println("The First num is :
"+Integer.parseInt(num1));
			System.out.println("The Second num is :
"+Integer.parseInt(num2));
		}

		catch(NumberFormatException e)
		{
			System.out.println("Wrong input format, Please enter an
Integer");
		}
	}

	void ArrayIndex()
	{
		System.out.println("\nEnter size of array : ");
		int n = sc.nextInt();

		int[] array = new int[n];
		System.out.println("Enter elements of the array : ");
		for(int i=0;i<n;i++)
		{
			array[i] = sc.nextInt();
		}
```

```
            try {
                  System.out.println("Enter index of element you want to
access : ");
                  int index = sc.nextInt();

                  System.out.println("Element present at "+index+" is arrya
"+array[index]);
            }
            catch(ArrayIndexOutOfBoundsException e)
            {
                  System.out.println("Desired index can not be accessed :
"+e);
            }
      }
}

public class Exception_Handle
{

      public static void main(String[] args)
      {
            Scanner sc = new Scanner(System.in);
            int ch;
            Exception ex = new Exception();

            do
            {
                  System.out.println("\n1.Arithmetic Exception\n2.Number
Format Exception \n3.Array Index Excepition");
                  System.out.println("Enter your choice : ");
                  ch = sc.nextInt();

                  switch(ch)
                  {

                        case 1:
                              ex.Arithmetic();
                              break;

                        case 2:
                              ex.NumberFormat();
                              break;

                        case 3:
                              ex.ArrayIndex();;
                              break;

                        case 4:
                              System.exit(0);
                              break;
                  }
            }while(ch<4);
      }

}
```

OUTPUT :

```
1.Arithmetic Exception
2.Number Format Exception
3.Array Index Excepition
Enter your choice :
1

**Perform Division**
Enter First Number :
10
Enter Second Number :
0

java.lang.ArithmeticException: / by zero
Divisible by 0 is Invalid


1.Arithmetic Exception
2.Number Format Exception
3.Array Index Excepition
Enter your choice :
2

**Perform Division**
Enter First Number :
w
Enter Second Number :
10

Wrong input format, Please enter an Integer


1.Arithmetic Exception
2.Number Format Exception
3.Array Index Excepition
Enter your choice :
3

Enter size of array :
3
Enter elements of the array :
1 2 3

Enter index of element you want to access :
4

Desired index can not be accessed :
java.lang.ArrayIndexOutOfBoundsException: Index 4 out of
bounds for length 3
```