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**Assignment No 6**

**Problem Statement : Implement a program to handle Arithmetic exception, Array Index Out of Bounds. The user enters two numbers Num1 and Num2. The division of Num1 and Num2 is displayed. If Num1 and Num2 are not integers, the program would throw a Number Format Exception. If Num2 were zero, the program would throw an Arithmetic Exception. Display the exception.**

**Source Code:**

**class** assignment6{

**double** t;//data member

assignment6()//default constructor

{

}

**void** divide(**int** x,**int** y) **throws** ArithmeticException//use of throws in a method

{

**if** (y==0)

{

**throw** **new** ArithmeticException("Zero error");//throwing an exception

}

**else** {

t=(**double**)x/(**double**)y;

**this**.display(t);

}

}

**void** display(**double** t)

{

System.***out***.println("The division is : "+t);

}

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

{

assignment6 obj=**new** assignment6();

**int** a = args.length;//using command line arguments

**int** b=0,c=0;//initialising value

//try catch block

**try**

{

b=Integer.*parseInt*(args[0]);

c=Integer.*parseInt*(args[1]);

}

**catch**(NumberFormatException e)

{

System.***out***.println("Arguments given are not integer : "+e);

}

**catch**(ArrayIndexOutOfBoundsException e)

{

System.***out***.println("Array index out of bound : "+e);

}

//try catch finally block

**try**

{

obj.divide(b,c);

}

**catch**(ArithmeticException e)

{

System.***out***.println("Divide by 0 :"+e);

}

**finally**

{

System.***out***.println("finally block executed");

}

System.***out***.println("Outside try-finally clause");

}

}

**Output :**

Array index out of bound : java.lang.ArrayIndexOutOfBoundsException: Index 0 out of bounds for length 0

Divide by 0 :java.lang.ArithmeticException: Zero error

finally block executed

Outside try-finally clause