**Session - 1**

1. **create a class and with divide two numbers by using Scanner class.(z=a/b).without try catch**

**Code:**

**import** java.util.Scanner;

**public** **class** ExceptionEx1 {

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

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter first number:");

**int** a = sc.nextInt();

System.***out***.println("Enter second number:");

**int** b = sc.nextInt();

**int** c = a/b;

System.***out***.println("divion of two number is: "+c);

}

}

**Output:**

Enter first number:

12

Enter second number:

0

Exception in thread "main" java.lang.ArithmeticException: / by zero

at ExceptionEx1.main(ExceptionEx1.java:11)

1. **create a class and take the input from by using scanner class, as a end user take two numbers with division and observe which type of exception raised. and apply try catch blocks**

**Code:**

**import** java.util.Scanner;

**public** **class** ExceptionEx2 {

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

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter first number:");

**int** a = sc.nextInt();

System.***out***.println("Enter second number:");

**int** b = sc.nextInt();

**try** {

**int** c = a/b;

System.***out***.println("divion of two number is: "+c);

}

**catch**(ArithmeticException e){

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

System.***out***.println("Divisible by 0 is not valid");

}

}

}

**Output:**

Enter first number:

67

Enter second number:

0

java.lang.ArithmeticException: / by zero

Divisible by 0 is not valid

1. **Create a class with single try multi catch blocks.**

**Code:**

**import** java.util.Scanner;

**public** **class** ExceptionEx3 {

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

**try** {

**int** arr[] = **new** **int**[4];

arr[2]=12;

String x= **null**;

**int** a=x.length();

}

**catch**(ArrayIndexOutOfBoundsException e){

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

System.***out***.println("array index out of bound");

}

**catch**(ArithmeticException e){

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

System.***out***.println("Divisible by 0 is not valid");

}

**catch**(Exception ae){

System.***out***.println("Exceptioon block");

}

**finally** {

System.***out***.println("Finally keyword block");

}

System.***out***.println("End of code");

}

}

**Output:**

Exceptioon block

Finally keyword block

End of code

**Session - 2**

1. **create a class with user defined exceptions.**

**Code:**

**class** UserException **extends** Exception{

**private** **int** password;

**public** UserException(**int** password) {

**this**.password=password;

}

**public** String toString() {

**return** "password not matched";

}

}

**public** **class** ExceptionEx4 {

**static** **void** checking(**int** password) **throws** UserException{

**if**(password>8)

**throw** **new** UserException(password);

**else**

System.***out***.println("Correct Password");

}

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

ExceptionEx4.*checking*(10);

System.***out***.println("RestCode");

}

}

**Output:**

Exception in thread "main" password not matched

at ExceptionEx4.checking(ExceptionEx4.java:16)

at ExceptionEx4.main(ExceptionEx4.java:21)

1. **create a class with Marks, and valid Marks method, give some number marks are less than he/she fails otherwise pass by using throw keyword.**

**Code:**

**public** **class** ExceptionEx5 {

**public** **void** pass(**int** marks) {

**if** (marks<5)

**throw** **new** ArithmeticException("You got:"+marks+" from 10. You need to word hard");

**else**

{

System.***out***.println("You got:"+marks+". Good");

}

}

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

ExceptionEx5 obj= **new** ExceptionEx5();

obj.pass(2);

System.***out***.println("welcome");

}

}

**Output:**

Exception in thread "main" java.lang.ArithmeticException: You got:2 from 10. You need to word hard

at ExceptionEx5.pass(ExceptionEx5.java:6)

at ExceptionEx5.main(ExceptionEx5.java:16)