**Exception**

* Exception is like a error .
* When Exception occurs the program will be terminated at the line itself.
* If Exception occurs we can handle by the code of our program.

**Exception Types :**

Checked (Or) Compile Time Exception

Unchecked (Or) Run-Time Exception

**Compile Time Exception :**

* File Not Found Exception
* IO Exception
* Class not found Exception
* SQL Exception

**Run-Time Exception :**

* Arithmetic Exception
* Null Pointer Exception
* Input Mismatch Exception
* Index Out Of Bound Exception

1.Array Index Out Of Bound Exception

**int** varname[]=**new** **int**[size];

2.String Index Out Of Bound Exception

**char** refname **=** varname**.charAt(size);**

* Number Format Exception

**Datatype refname = Integer.parseInt(varname);**

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Parent Class Of Exception is **Throwable**.

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**Exception Handling:**

* try
* catch
* finally(System.exit(0))
* throw
* throws

Select The Exception Line ----> R.C ----> SurroundWith -----> Try Catch Block

Or

Alt+Shift+Z

try: It will try the exception.

catch: it will catch the Exception.

finally: Whether the Exception Occurs Or Not The Finally Block Will be Executed Automatically At The Time Itself.

throw :

* It is inside the method.
* it will throw the exception.
* throw It Will throw only one Exception.

throws :

* It is in the method level.
* It Will declare the Exception/Throwable.
* Throws it will declare more than one Exception.

Class classname{

public static void m1() throws NullPointerException, IOException()

--------throw new ArE()

-------

p.s.v.m{

try{

}

Catch(NullPointerException e){

}

Catch(IOException e1){

}

}

}

//sample:

Scanner s = new Scanner(System.in);

System.out.println("enter your roll number");

int roll = s.nextInt();

try {

if (roll < 0) {

throw new ArithmeticException(

"The number entered is not positive"

);

} else {

System.out.println("Valid roll number");

}

} catch (ArithmeticException e) {

System.out.println("An exception is thrown");

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

}

}