

Exception Handling

→ What is exception?

unexpected event disturbs normal flow of program.

→ e.g. FileNotFoundException

→ what is purpose of exception handling?

graceful termination

e.g.
↓
open db connection
Read data → SQLException
↓
close db connection

→ In what ~~way~~ way you are handling exception?
defining alternative way to continue rest of the program normally is called exception handling.

e.g. ① Read remote file
FileNotFoundException
|
~~① Read remote file
if (Remote file not available)
{
use Local file;
}~~

2. try {

Read remote file

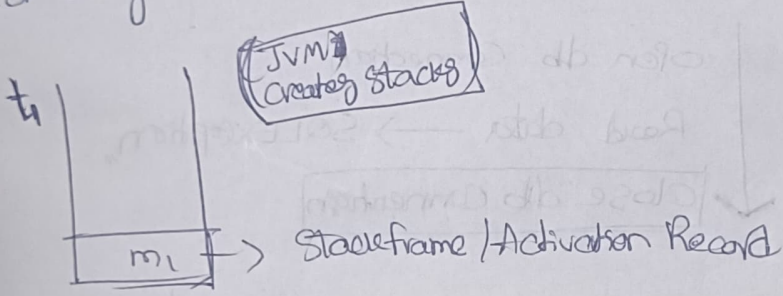
} catch (FileNotFoundException e) {

use local file;

}

Runtime Stack mechanism

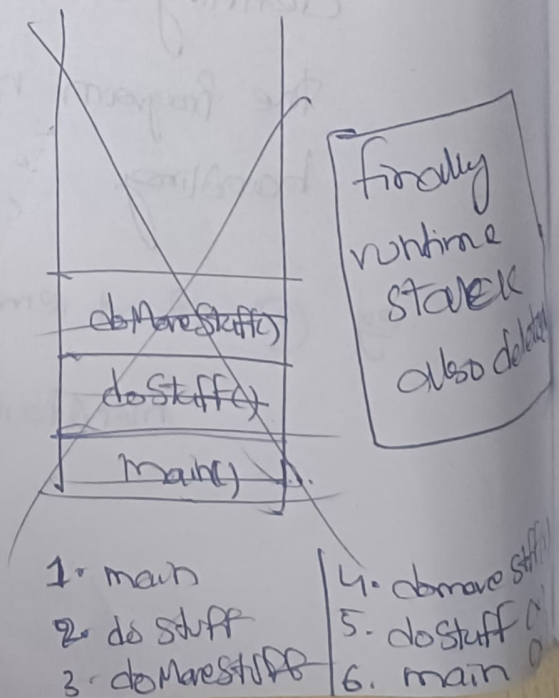
→ For every thread has ~~only~~ own stack



eg: Class Test

```
{  
    PSVM (String [] args)  
    {  
        doStuff();  
    }  
    PSV doStuff() {  
        doMoreStuff();  
    }  
    PSV doMoreStuff() {  
        S.O.P (Hi);  
    }  
}
```

main thread



if no handling code in caller method
that method also abnormally terminated
and entry is removed from stack

Finally control goes to main method

then if main method also didn't
handle exception it's also terminated
abnormally.

Now Finally control comes to JVM so its
responsible to handle using "default
exception handling"

default exception handling prints to console
in specific format and terminate

Format of Printing Default Exception

exception in Thread 'main': AE: / by zero

at test.demostuff();

at test.destuff();

at test.main();

Default exception Handling in Java

class Test

{

PSV main (String [] args)

{

doStuff();

}

PSV doStuff()

{

doMoreStuff();

}

PSV doMoreStuff()

{

S.O.P(10/0);

}

The method in which exception raised is responsible to create exception "object" with jvm help

exception object →

Name: AExcp
Description: 1 by zero
Stacktrace:

handover object to jvm

Q) JVM ask ^{exception raised} method do you have handling code?

A) is NO, Method is terminated abnormally without executing remaining code and remove method from stack. and control now goes to method which called the exception causing method i.e. doStuff method in our example