

Exception Hierarchy:

Object

Check Exception
Unchecked Exception

Throwable (C)

unchecked

Exception

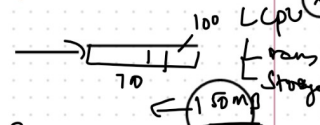
Runtime Exception

IOException

RemoteException

Error

lack of resources



not in our control

Out of Memory Error
Stack Overflow Error

InputMismatchException

ArithmeticException

NullPointerException

IndexOutOfBoundsException

ArrayIndexOutOfBoundsException

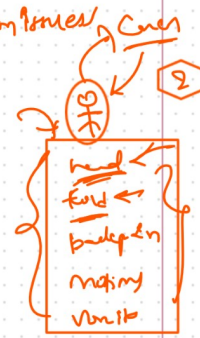
StringIndexOutOfBoundsException

FileNotFoundException

C:\code\my_code\input.txt

207
a/b
↑
error (X)

Checked Exception => compiler checked



Note: (Error)

U can never handle Error

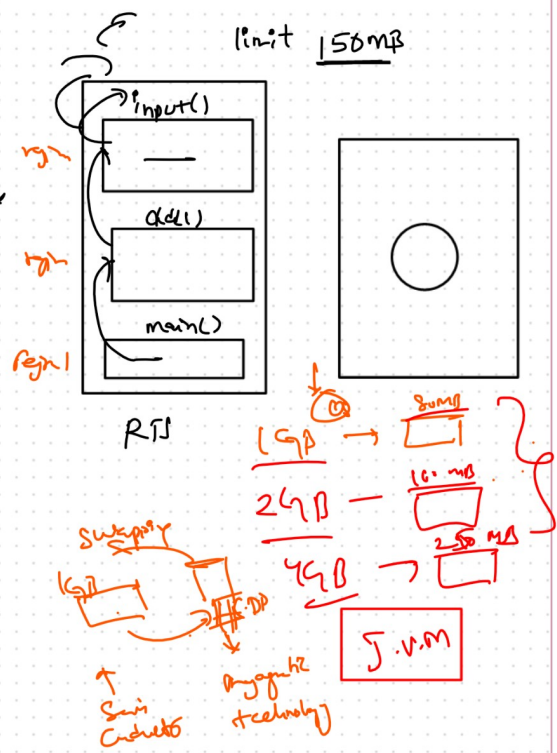
Errors occur due to lack of system resource i.e (cpu, ram, hdd/ssd) storage

ex: StackOverflowError (this error occurs when there is no space to pass a new stackframe in the stack)

Out of Memory Error: (this error occurs when there is no sufficient space available in the heap area, to create a object)

Errors cannot be handled

All errors are unchecked



Exceptions

→ The exceptions which are checked by the compiler for the smooth execution of the program is considered as "Checked Exception".

→ The exceptions which are not checked by the compiler during the compile are considered as "Unchecked Exception".

→ All the exceptions ^(or) which fail under run-time are considered as "run-time exception".

→ Rest of the exceptions are "Checked Exceptions".

→ If there is any checked exception in the program, it is compulsory to handle that exception, otherwise it gives us

"Compile time Error" & we cannot / never run the program.
Reason: we want get the class file.