

Day 22

Exception Handling:

- Exception is an unexpected condition which cause a program to exit/terminate

Built-in Exception:

[Java.lang.Object] Object \rightarrow superclass \rightarrow (Hierarchically)
 \rightarrow Throwable class \rightarrow
 \rightarrow Exception class

- ① Compilation Exception (checked)
- ② Run-time Exception (unchecked)

\rightarrow not identified by Java compiler

eg: ① Arithmetic

② null pointer

③ array index out of bound Exception

eg: int a=10, b=0;

int c = a/b;

System.out.println(c);

System.out.println(" "); \rightarrow this means marks of Exist

Running time error found

Arithmetic Exception

eg: String name = null;

~~System.out.println(name.length());~~

name is null

null pointer Exception

eg: int [] a = new int [10];

System.out.println(a[5]);

size diff

Array index

① Compile time:

→ identified by Java Compiler

① → file not found

→ eg: `FileInputStream f = new FileInputStream("...");`
`Thread.sleep(5000);` → 5 sec wait

② → Interrupted Exception

③ → I/O Exception

Exception handle:

Try catch method on Block

try/catch are mandatory

```
try {
```

```
} // exception statement / Execution.
```

```
catch (Exception e) → exception type
```

```
{ // Reference (e.g. getMessage)
```

```
// code to handle it
```

```
}
```

throwing:

- it won't handle.

- compile time Execution will

- there are the chances to be come of error
use try catch.

- with throwing we can remove comp
Exception.

→ Add throw's declaration.

→ it w'll come with method

→ used if want to execute without handling

finally:

```
{  
  // recovery step  
  // mandatory it will work  
}
```

```
try  
{  
  // (if not working)  
}  
catch  
{  
  // (it will work only  
  // with exception)  
}  
finally  
{  
  // (mandatory it will  
  // work)  
}
```