

Assignment: Exception Handling using Module and Package (3 steps)

Name: Anirafun Nahar Asa ID: IT22027

Date: 17-05-2025

Project Title: ExceptionHandlingModule

Project Structure:

```
ExceptionHandlingModule/  
├── module-info.java  
│   └── validation/  
│       ├── InvalidAgeException.java  
│       ├── InvalidDeptException.java  
│       └── Validator.java  
└── App.java
```

module-info.java

```
module exceptionhandlingmodule {  
    exports validation;  
}
```

Package : validation

InvalidAgeException.java

package validation;

public class InvalidAgeException extends Exception{

public InvalidAgeException (String message) {
super (message);

}

}

InvalidDeptException.java

package validation;

public class InvalidDeptException extends Exception{

public InvalidDeptException (String message){
super (message);

}

}

Validator.java

Package validation;

public class Validator {

public static void validateAge (int age) throws InvalidAgeException {

if (age < 18) {

throw new InvalidAgeException ("Age must be ~~below~~
above 18.");

}

System.out.println ("Valid age: " + age);

}

public static void validateDept (String dept) throws InvalidDeptException {

String [] validDepts = {"CSE", "EEE", "ICT"};

boolean isValid = false;

for (String d: validDepts) {

if (d.equalsIgnoreCase (dept)) {

isValid = true;

break;

}

```
if (!isValid) {
```

```
-throw new InvalidDeptException("Invalid Department  
Must be CSE, EEE or ICT");
```

```
}
```

```
System.out.println("Valid Dept: " + dept);
```

```
}
```

```
}
```

App.java (Main class)

```
import validation.*;
```

```
public class App {
```

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

```
int age = 17;
```

```
String dept = "ICT";
```

```
try {
```

```
validation.validateAge(age);
```

```
validation.validateDept(dept);
```

```
System.out.println("Student reg successful.");
```

```
}
```

```
catch (InvalidAgeException | InvalidDepException e) {  
    System.out.println ("Validation Error: " + e.getMessage());  
}
```

```
}  
}
```