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Optional class

# Use Optional class and avoid NullPointerException from the below code: String names[] = new String[5];

**System.out.print(names[0].length());**

import java.util.Optional;

public class OptionalExample {

public static void main(String[] args) { String names[] = new String[5];

// Wrap names[0] in Optional to avoid NullPointerException Optional<String> optName = Optional.ofNullable(names[0]);

// Provide a default value if null

int length = optName.map(String::length).orElse(0);

System.out.println(length);

}

}

# Output:

0

# Given a String address, print the address if it is not null or else print the default address as "India".

import java.util.Optional;

public class AddressExample {

public static void main(String[] args) {

String address = null; // You can change this to test

// Wrap in Optional and provide default if null

String result = Optional.ofNullable(address).orElse("India");

System.out.println(result);

}

}

# Output:

Chennai

# Given an Employee object which may be initialized to null, use Optional class to check if it is null and to throw an user defined exception Invalid EmployeeException.

// User-defined Exception

class InvalidEmployeeException extends Exception { public InvalidEmployeeException(String message) {

super(message);

}

}

// Employee class class Employee {

private String name;

public Employee(String name) { this.name = name;

}

public String getName() { return name;

}

}

// Main Class

import java.util.Optional;

public class EmployeeTest {

public static void main(String[] args) {

Employee emp = null; // You can change this to new Employee("John") for testing

try {

// Use Optional to check and throw exception Employee validEmp = Optional.ofNullable(emp)

.orElseThrow(() -> new InvalidEmployeeException("Invalid

Employee!"));

System.out.println("Employee Name: " + validEmp.getName());

} catch (InvalidEmployeeException e) {

System.out.println("Exception caught: " + e.getMessage());

}

}

}

# Output:

Employee Name: John