

ASSIGNMENT 7

Course Name: CS6308 Java Programming

Course Instructor: Jayachitra V P

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1. Write a program to perform unchecked exception. Use appropriate try-catch blocks to handle these exceptions and provide meaningful error messages

ArrayIndexOutOfBoundsException

Array index is out-of-bounds.

ArrayStoreException

Assignment to an array element of an incompatible type.

ClassCastException

Invalid cast.

IllegalArgumentException

Illegal argument used to invoke a method.

IndexOutOfBoundsException

Some type of index is out-of-bounds.

NegativeArraySizeException

Array created with a negative size.

NullPointerException

Invalid use of a null reference.

NumberFormatException

Invalid conversion of a string to a numeric format.

StringIndexOutOfBoundsException

Attempt to index outside the bounds of a string.

UnsupportedOperationException

An unsupported operation was encountered.

2. Write a program that demonstrates different try-catch-finally block combinations
 - a. Try without catch block
 - b. Try without finally block

- c. Try with catch and finally block
 - d. Try with multiple catch block
 - e. Nested try catch finally block
 - f. Try with resources
3. **Create a custom exception class called InvalidMarkException that extends Exception. Then, write a Student class with a method to set marks that throws this custom exception if the mark is out of range (e.g., less than 0 or greater than 100).**
 4. **Write a program to illustrate the propagation of checked and unchecked exception.**
 5. **Write a program to illustrate the method overloading in exception handling mechanism for checked and unchecked exception**
 6. **Implement a base class and a derived class to demonstrate exception handling in method overriding: a) Overriding a method that throws an unchecked exception b) Overriding a method that throws a checked exception**