

MODULE 3

Q No	Question
1	Write a Java program that throws an arithmetic exception and catch it using a try-catch block.
2	Write a Java program to get specific files with extensions from a specified folder.
3	Write a Java program to store text file content line by line in an array.
4	Write a Java program to check if the given pathname is a directory or a file and check if a file or directory has read and write permissions.
5	Write a Java program to create a method that takes an integer as a parameter and throws an exception if the number is odd.
6	Write a Java program to get the file size in bytes, KB, MB.
7	Write a Java program to reverse the elements of a stack.
8	Write a Java program to implement a stack that checks if a given element is present or not in the stack.
9	Write a Java program to create a method that takes a string as input and throws an exception if the string does not contain vowels.
10	Write a Java program that reads a file and throws an exception if the file is empty.
11	Create a custom exception class called NegativeNumberException . Write a program that takes an integer input from the user and throws this exception if the number is negative.
12	Write a program that reads data from a text file. Implement exception handling to handle potential FileNotFoundException and IOException errors.
13	Write a program that prompts the user to enter their age. Implement exception handling to ensure that the age entered is a positive integer.



14	Create a program that asks the user to enter a password. Implement exception handling to check if the password meets certain criteria (e.g., length, special characters).
15	Design a simple bank account class. Implement exception handling for insufficient balance and invalid account numbers.
16	Write a program that manages a contact list. Implement exception handling to handle duplicate entries and invalid inputs.
17	Write a Java program that reads the contents of one text file and copies it to another text file. Implement error handling for cases where the source file is not found or the destination file cannot be created.
18	Write a Java program that simulates posting on a social media platform. Implement exception handling for cases where the post exceeds the character limit.
19	Build a simple ATM simulator program. Handle exceptions for incorrect PINs, insufficient balances, and withdrawal limits.
20	Design a password reset system that allows users to change their passwords. Implement exception handling for cases where the new password doesn't meet security criteria.
21	Develop a Java application for processing student grades. The application reads student grades from a file and calculates the average grade. However, the input file may contain non-numeric data. Handle exceptions related to file input and parsing non-numeric data.
22	Develop a library management system in Java. As part of this system, you need to handle exceptions related to book borrowing and returning. Create a user-defined checked exception class named BookNotAvailableException that extends Exception . This exception should be thrown when a user attempts to borrow a book that is not available in the library. Implement a constructor in this class that accepts a custom error message.
23	Create a Java program that intentionally generates an exception (e.g., NullPointerException). In the catch block, use Thread.currentThread().getStackTrace() to print the stack trace elements to the console, including class names, method names, and line numbers.
24	Write a Java program that attempts to read data from a non-existent file. Use the try-catch block to handle the FileNotFoundException that may occur. In the catch block, print a message indicating that the file was not found.



25	<p>You are developing a banking application in Java. As part of this application, you need to handle certain exceptional scenarios of withdrawing more money from an account than the available balance. To address these scenarios, you decide to create custom exceptions.</p> <p>Create a custom checked exception class named InsufficientBalanceException that extends Exception. This exception should be thrown when a user attempts to withdraw an amount that exceeds the available balance in their account. Implement a constructor in this class that accepts a custom error message</p>
26	<p>Write a Java code that reads a line of text from the console and then writes it back to the console.</p>
27	<p>Write a Java code that reads content from a text file, manipulates it, and writes it back to another text file.</p>
28	<p>Write a Java program that reads a text file named input.txt and counts the number of lines in the file. Display the line count as output. Implement the file reading and counting logic using character streams. Also handle any potential file I/O exceptions.</p>
29	<p>Create a Java program that copies the content of one text file to another text file. Implement this functionality using byte streams</p>
30	<p>Write a Java program that reads the contents of a text file named input.txt. The program should search for a specific word or phrase provided by the user and replace all occurrences with another word or phrase also provided by the user. Write the modified content back to a new text file named output.txt.</p>
31	<p>Develop a Java program that reads data from a file and handles exceptions that may occur during file operations, such as FileNotFoundException, IOException, and others.</p>
32	<p>Define a parent class and a child class with exception handling. Demonstrate how exceptions can be propagated in an inheritance hierarchy.</p>
33	<p>Write a program that validates user input (e.g., age, score) and throws a custom exception for invalid input values.</p>
34	<p>Write a Java program that reads a list of integers from the user and throws an exception if any numbers are duplicates.</p>
35	<p>Write a Java program to create a method that takes a string as input and throws an exception if the string does not contain vowels.</p>
36	<p>Write a Java program to read file content line by line and throws exception if file not</p>



SOMAIYA
VIDYAVIHAR UNIVERSITY

K J Somaiya College of Engineering

K. J. Somaiya College of Engineering, Mumbai-77
(A Constituent College of Somaiya Vidyavihar University)
Department of Electronics and Computer Engineering



	found
37	Write java program to write data to a File using filewriter
38	Write a program to format string entered by user using Console format(String fmt, Object... args) method and if syntax of format is not proper throw IllegalFormatException
39	Write a Java program to find the longest word in a text file and create user defined exception if file is not found
40	