

FACULTY OF COMPUTER APPLICATION & IT
IMSCIT PROGRAMME
SEM-IV
SUBJECT : Core JAVA
PARCTICAL ASSIGNMENT – 4(Unit – 4)

1.	Write a program to display the sum of digits of given numbers with exception handling.
2.	Write a java program which takes 2 arguments - a string and its length. If the length of the string is not according to given one then throw the user defined LengthMatchException and handles it appropriately.
3.	Write a Java program to input n integer numbers and display lowest and second lowest number. Also handle the different exceptions possible to be thrown during execution.
4.	Write a java program that accepts 5 even numbers from joption pane. If any of the number is odd then throw custom exception OddException and count such invalid numbers.
5.	Write a program to define custom exception called "no match exception" that is thrown when a string is not equal to "internet" This string is providing through Joption pane.
6.	Write a Java program that asks the user to input two integers and then divides the first by the second. Handle any ArithmeticException (e.g., division by zero) with an appropriate message.
7.	Write a program that creates an array of size 5. Try to access an index outside the bounds of the array and catch the ArrayIndexOutOfBoundsException to display an error message.
8.	Write a program to demonstrate the use of the finally block. Ensure that the program prints a message from the finally block regardless of whether an exception is thrown.
9.	Define User-Defined Exception which calculate the square of value.
10.	Write a class to sort the given set of N integers in descending order. Include a try block to locate the array index out of bounds exception and catch it.
11.	Write a Java program that accepts user input as a string and tries to convert it to an integer. Handle NumberFormatException when the user inputs non-numeric data.
12.	Create a custom exception ProductNotFoundException that accepts a product ID in its constructor. Write a program to simulate searching for a product in an inventory system and throw this exception if the product is not found.
13.	Write an small application in Java to develop Banking Application in which user deposits the amount Rs 1000.00 and then start withdrawing of Rs 400.00, Rs 300.00 and it throws exception "Not Sufficient Fund" when user withdraws Rs. 500 thereafter.
14.	Write a java program to handle the exception using try and multiple catch block.
15.	Write a program to handle the user defined exception using throw keyword.
16.	Write a java program which shows String class methods.
17.	Write a java program using StringBuffer Class and its methods.
18.	Write a program that converts the following primitive types (int, double, char, boolean) to their respective wrapper class objects (Integer, Double, Character, Boolean). Then, display their values.

19.	<p>Create a object of string buffer class,which stores a string from the user. Perform the following operations.</p> <ul style="list-style-type: none"> ● Reverse the string and print it. ● Take another string from the user and append it with existing string. ● Print the capacity of the modified string.
20.	<p>Consider string s="FCAIT GLS University", modify the string s as</p> <ul style="list-style-type: none"> ● Convert the string into uppercase and lowercase ● Find out the character at position 5. ● Find out the sub string as GLS University.
21.	<p>Write a java program which contains the two string from user and perform the following string.</p> <ul style="list-style-type: none"> ● Find out whether two strings are equal. ● Find out whether two strings equal when case is ignored. ● Compare two strings.
22.	<p>Write a Java program to do following operations on String.</p> <ol style="list-style-type: none"> 1. To find the reverse of a string 2. To replace string 3. To convert into upper case 4. Conver the uppercase string to lowercase.
23.	<p>Write a program that demonstrates autoboxing and autounboxing. Add an int value to an ArrayList<Integer> and print the contents of the list. Then, retrieve the value and perform mathematical operations.</p>
24.	<p>Write a program that demonstrates unboxing. Initialize a wrapper object for a primitive value (e.g., Integer holding an int), then retrieve and print the primitive value from the wrapper object.</p>
25.	<p>Write a program that converts a String to different primitive types (int, double, boolean) using the parseXXX() methods from the respective wrapper classes</p>