SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)
DELHI-NCR CAMPUS, GHAZIABAD (U.P)

SRM Institute of Science and Technology
Department of Computer Applications

Delhi – Meerut Road, Sikri Kalan, Ghaziabad, Uttar Pradesh – 201204

Academic Year: 2024-25 (ODD)

Course/Branch – MCA -I SEM

Subject Name & Code – Programming using Java Lab (PCA20C01J)

List of Programs:

S.No.	List of Experiments
1.	Write a Java program to accept following details about a student as follows: i. rollno ii. fullname iii. address iv. stream v. total marks in 5 subjects vi. percentage display all the details in a readable format?
2.	Write a java program to print following output * *** ***** ******* ***** *** *
3.	Write a java program to print tables from 1 to accepted numbers, using loops and keyboard inputs.
4.	Write a java program to check input no is part of Fibonacci series or not? Print Fibonacci series till that point.
5.	Write a java program to accept 10 integer values from the user, store them in an array, i. arrange the array in ascending and descending order, ii. find the Maximum, minimum and average. iii. Print only either Odd or Even
6.	Write a java program to create a calculator. Use classes and methods to perform +,-,*,/,%.
7.	Create a class “Enclosed” within it create inner class “Nested”, both the classes should have at least one method to display messages. Try to call the method of the “Nested” class in the “Enclosed” class and vice versa.
8.	Create a class called MyString : Declare two string type variables: str1 (“ Welcome to Java tutorial”) and str2(“Today's topic is String Handling in Java”). Perform following operations in this class: i. Concatenate two strings ii. Covert str1 into lower case iii. Covert str2 into upper case iv. Are both equal to each other v. Show the location of “J” in both str1 and str2 vi. Replace “i” with “I” in both the strings vii. display “java” from str string

	viii. Display the "7" character in str1. ix. Convert str1 into string array
9.	Create a variable of Stringbuffer class and initialize it with "Hello srm Students" , perform following operation on it: i. Check its capacity ii. Extend its capacity to 100. iii. Get the character at 10 locations and set it to its uppercase version. iv. Get characters from 10 to 20th location. v. Append "How are you?" in the string vi. Insert "MCA" before srm vii. Replace "srm" with "SRM" viii. Extract Students from the string ix. Delete "Hello"
10.	Create a class person (Data Member: Name & address , Method: Accept() and display() to accept and display value of data member on Output device. Derive two classes student (Data Member: Rollno, Course Member Method: Accept() and Display()) and Employee((Data Member: EmpId ,Department Member Method: Accept() and Display()).display details of one student and one employee.
11.	WAP to show the use of Interfaces in java.
12.	Write a java program to display the grade of students depending on marks and if less than 0 or more than 100 marks are entered for grade (use throws to transfer the exception till JVM level is reached instead of handling it through try catch).
13.	Write a Java program to use the try and catch and finally block
14.	Write a program to print details of the main thread. Also change its name to "thread_1" and priority as "4" .
15.	Write a multithreaded program where one thread will print 0-5 and another thread will print 5-0. Use thread class.
16.	Write a java multithreaded (2 or more)java program , one thread will print odd numbers and another will print even numbers and the main thread is there it will print date and time. Use Runnable interface**.**
17.	Write a java program to demonstrate the synchronization between 2 threads.
18.	WAP to show the use of Legacy classes
19.	WAP to create a Simple GUI with text field button and label and handle click event of button.
20.	WAP to show different layouts using AWT controls.
21.	WAP to create a GUI to show checkboxes handling their events.
22.	WAP to show the use of Console class for reading and writing.
23.	WAP to count the number of characters, words and lines in a file.

Name & Signature of Faculty:

Dates:

1. 22-07-24
2. 26-07-24
3. 5-08-24
4. 09-08-24
5. 09-08-24
6. 12-08-24
7. 12-08-24
8. 16-08-24
9. 30-08-24
10. 02-09-24