

WEEK NO.	PROBLEMS WITH DESCRIPTION.	
1.	1#	Sum of Two Numbers: Write a program that takes two integers from the user and prints their sum.
	2#	Even or Odd: Write a program to check whether a given number is even or odd.
	3#	Largest of Three Numbers: Write a program to find the largest of three numbers.
	4#	Simple Calculator: Write a program to create a simple calculator that can add, subtract, multiply, and divide two numbers.
	5#	Leap Year Check: Write a program to check whether a given year is a leap year.
2.	1#	Fibonacci Sequence: Write a program to print the first 10 numbers of the Fibonacci sequence.
	2#	Factorial of a Number: Write a program to calculate the factorial of a given number.
	3#	Prime Number Check: Write a program to check whether a given number is prime or not.
	4#	Reverse a Number: Write a program to reverse the digits of a given number.
	5#	Palindrome Check: Write a program to check if a given string or number is a palindrome.
3.	1#	Binary to Decimal Conversion: Write a program to convert a binary number to its decimal equivalent.
	2#	Decimal to Binary Conversion: Write a program to convert a decimal number to its binary equivalent.
	3#	Count Vowels and Consonants: Write a program to count the number of vowels and consonants in a given string.
	4#	Sum of Digits: Write a program to calculate the sum of the digits of a given number.
	5#	Write a program to find the HCF and LCM of two numbers.
4.	1#	Simple Array Operations: Write a program to perform basic operations like finding the sum, average, maximum, and minimum of elements in an array.
	2#	Matrix Addition: Write a program to add two matrices.
	3#	Matrix Multiplication: Write a program to multiply two matrices.
	4#	Find Largest Element in an Array: Write a program to find the largest element in an array.
	5#	Sort an Array: Write a program to sort an array using the bubble sort algorithm.

5.	1#	Merge Two Sorted Arrays: Write a program to merge two sorted arrays into one sorted array.
	2#	Transpose of a Matrix: Write a program to find the transpose of a given matrix.
	3#	Check Prime Numbers in a Range: Write a program to find all prime numbers between two given intervals.
	4#	Implement a Stack: Write a program to implement a stack using an array with push, pop, and display operations.
6.	1#	Implement a Queue: Write a program to implement a queue using an array with enqueue, dequeue, and display operations.
	2#	Write a C program to implement First-Come-First-Served (FCFS) scheduling.
	3#	Write a C program to implement Shortest Job Next (SJN) scheduling.
7.	1#	Find the Second Largest Element in an Array: Write a program to find the second largest element in an array.
	2#	Implement a C program to simulate Round-Robin scheduling.
	3#	Write a C program to implement Priority scheduling.
8.	1#	Find the Missing Number in an Array: Write a program to find the missing number in an array containing n distinct numbers taken from the range 0 to n.
	2#	Write a C program to simulate deadlock conditions.
	3#	Implement a C program using the Banker's Algorithm for deadlock avoidance.
9.	1#	Write a report on the stages of the system development life cycle.
	2#	Compare and contrast SSAD and OOAD.
	3#	Create a diagram representing the SDLC stages.
	4#	Write a C program to simulate a simple system development task.
10.	1#	Write a report on the fundamental concepts of object orientation.
	2#	Create a UML class diagram for a simple system.
	3#	Write a C++/Java program to demonstrate inheritance and polymorphism.
	4#	Implement a C++/Java program to simulate object-oriented modelling.
11.	1#	Write a report on the elements of object-oriented design.
	2#	Create a UML package diagram for a simple system.
	3#	Implement a C++/Java program to demonstrate the use of design patterns.
	4#	Write a C++/Java program to simulate object-oriented design.
12.	1#	Identify the requirements for a library information system.
	2#	Create a use-case diagram for the library information system.
	3#	Create a class diagram for the library information system.
	4#	Implement a C++/Java program to simulate a part of the library information system.

13.	1#	Binary Search: Write a program to perform binary search on a sorted array.
	2#	Write a shell script to demonstrate basic file-related commands in Linux.
	3#	Write a shell script to demonstrate file creation and deletion.
14.	1#	Write a shell script to change file permissions and ownership.
	2#	Implement a shell script to search for a specific file in a directory.
	3#	Write a shell script to display the contents of a file with line numbers.