Lab Practise

1. Research and provide three real-world applications where C programming is extensively used, such as in embedded systems, operating systems, or game development.

C programming is extensively used in embedded systems, operating systems, and game development. Specifically, it is a cornerstone for developing embedded systems, where it is crucial for interacting directly with hardware, and it is also vital in operating system kernels and drivers, as well as for game development due to its high performance and control.

1. Install a C compiler on your system and configure the IDE. Write your first program to print "Hello, World!" and run it.=ok
2. Write a C program that includes variables, constants, and comments. Declare and use different data types (int, char, float) and display their values.=ok
3. Write a C program that accepts two integers from the user and performs arithmetic, relational, and logical operations on them. Display the results.=on process
4. Write a C program to check if a number is even or odd using an if-else statement. Extend the program using a switch statement to display the month name based on the user’s input (1 for January, 2 for February, etc.).=ok
5. Write a C program to print numbers from 1 to 10 using all three types of loops (while, for, do-while)=ok
6. Write a C program that uses the break statement to stop printing numbers when it reaches 5. Modify the program to skip printing the number 3 using the continue statement.=ok
7. Write a C program that calculates the factorial of a number using a function. Include function declaration, definition, and call.=ok
8. Write a C program that stores 5 integers in a one-dimensional array and prints them. Extend this to handle a two-dimensional array (3x3 matrix) and calculate the sum of all elements=ok
9. Write a C program to demonstrate pointer usage. Use a pointer to modify the value of a variable and print the result
10. Write a C program that takes two strings from the user and concatenates them using strcat(). Display the concatenated string and its length using strlen.=ok
11. Write a C program that defines a structure to store a student's details (name, roll number, and marks). Use an array of structures to store details of 3students and print them.=ok
12. Write a C program to create a file, write a string into it, close the file, the n open the file again to read and display its contents.=ok