

WEEK NO.	PROBLEMS WITH DESCRIPTION		PAGE NO.	SIGNATURE OF THE TEACHER WITH DATE
1	1#	Sign up and complete profile on GitHub and LinkedIn.		
	2#	Add a professional photo, summary, and academic background on LinkedIn.		
	3#	Create and push a public repository with a README on GitHub.		
	4#	Download resume generated from LinkedIn.		
	5#	Explore Coding/Data platforms like SWAYAM, FreeCodeCamp, Kaggle, Colab, LeetCode, HackerRank, Stack Overflow, Dev.to, Canva, etc.		
2	1#	<p>Open offline/online versions of the following office applications</p> <ul style="list-style-type: none"> • MS Office • Google Workspace (Docs, Sheets, Slides) <p>a. Create a comparative table in MS Word with the following columns:</p> <ol style="list-style-type: none"> Feature MS Office Google Office Suite <p>b. Compare the following features:</p> <ol style="list-style-type: none"> Text formatting Table creation Real-time collaboration Saving/exporting formats Offline availability Macro/automation support <p>c. Highlight the best-performing tool for each feature.</p> <p>d. Save the table as PDF and upload to GitHub using Git commands.</p>		
	2#	<p>Do the following in Code::Blocks and DevC++ editors:</p> <p>a. Compile and run the following minimal C program in both editors:</p> <pre>#include<stdio.h> int main() { printf("Lab Setup Successful!\n"); return 0; }</pre> <p>b. Take screenshots of successful run/output window from both editors.</p>		

	3#	<p>In your Documents or Home folder, create the following folder structure:</p> <p>a. Save all Week 2 files in the Week2/ folder.</p> <pre> BSc-CS-Lab/ ├─ Week1/ ├─ Week2/ └─ Reports/ </pre> <p>b. Rename and copy the Week 2 MS Word report file to the Reports/ folder with the name "YourRollNo_EditorComparison.docx"</p>		
3	1#	<p>Type the passage below as it is:</p> <p>a) Save the document as maths.docx.</p> <p>b) Change the case of the main heading to Title Case, Font size 16, double underline & Centre it.</p> <p>c) Put a border right round the passage & not the page.</p> <p>d) Justify all the paragraphs excluding the main heading.</p> <p>e) Change the font type of paragraph 2 to Bookman Old Style, font size 14.</p> <p>f) Divide the passage into 2 columns with a line between.</p> <p>g) Drop cap all the paragraphs in your document excluding the headings.</p> <p>h) Change the line spacing of the entire document to 1.5 lines.</p> <p>i) Save the document as math2.docx</p> <p>j) Upload both in your GitHub account using add, commit, push etc. command of Git.</p>		
	2#	<p>Create a table in word as shown below:</p> <p>Do the following:</p> <p>(a) In the total marks column, entries should be calculated using formulas and it is the sum of marks in physics and marks in chemistry.</p> <p>(b) Insert a new row at the end of the table and also find grand total using formula.</p> <p>(c) Sort the table based on total marks.</p> <p>(d) The date and heading should be center aligned.</p> <p>(e) Heading should be in bold and underlined.</p>		
	3#	<p>Create a 5-slide presentation on any topic. Use Images, Graphs, Chart, Tables, Animation, Time, Bullets, Transition, Sound, Hyperlink, Background template, Header and Footer.</p>		

4	#1	<div>Create a spreadsheet with the following entries:</div> <table><tr><td>A2 = CHICKEN INN</td><td>B5 = 3</td></tr><tr><td>A4 = FOOD ITEM</td><td>B6 = 1</td></tr><tr><td>A5 = PORTION CHIPS</td><td>B7 = 1</td></tr><tr><td>A6 = SADZA & STEW</td><td>B8 = 2</td></tr><tr><td>A7 = RICE & CHICKEN</td><td>B9 = 3</td></tr><tr><td>A8 = HAMBURGER</td><td>C4 = UNIT COST</td></tr><tr><td>A9 = SOFT DRINKS</td><td>C5 = \$135.00</td></tr><tr><td>C10 = SUBTOTAL</td><td>C6 = \$180.00</td></tr><tr><td>C11 = SUB TAX @ 15%</td><td>C7 = \$200.00</td></tr><tr><td>B4 = QUANTITY</td><td>C8 = \$170</td></tr><tr><td></td><td>C9 = \$65.00</td></tr><tr><td></td><td>D4 = COST</td></tr></table>	A2 = CHICKEN INN	B5 = 3	A4 = FOOD ITEM	B6 = 1	A5 = PORTION CHIPS	B7 = 1	A6 = SADZA & STEW	B8 = 2	A7 = RICE & CHICKEN	B9 = 3	A8 = HAMBURGER	C4 = UNIT COST	A9 = SOFT DRINKS	C5 = \$135.00	C10 = SUBTOTAL	C6 = \$180.00	C11 = SUB TAX @ 15%	C7 = \$200.00	B4 = QUANTITY	C8 = \$170		C9 = \$65.00		D4 = COST		
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		<div>Perform The Following:</div> <div>a) Make B2 bold, underlined and size 16.</div> <div>b) Make all headings, i.e. A4 – D4, bold.</div> <div>c) Put borders on all entries of the sheet.</div> <div>d) Save document as Qn2data and print it.</div> <div>e) Input the formulae for the cost price of each item D5 – D9</div> <div>f) Input the formulae for the calculated amounts for subtotals, sales tax and total cost in D10 – D12 respectively.</div> <div>g) Create the Pie Graph for the Food Item and Quantity Columns. The pie chart should have an appropriate title, legend, and each portion should show the percentage occupied by each item.</div> <div>h) Save the document as Qn2chicken and print it.</div> <div>i) Show formulas you have used in a new sheet and save it as formulas.</div>																										
5	1#	Write a program to print the no. of bytes used by the different data type using the <i>sizeof()</i> operator.																										
	2#	Develop a flow chart/algorithm and write an interactive program to find Simple Interest and Compound Interest, where Principle, Rate and Time are taken from the keyboard.																										
	3#	Develop a flow chart/algorithm and write an interactive program to interchange the value of two variables. Note :- (both ways using temporary variable and not using any other value)																										
	4#	Write a program in C that reads the length of the three side of a triangle (a, b, c) and determine what type of triangle it is, based on the following cases: i) If $a > b+c$ no triangle is formed ii) If $a^2 = b^2+c^2$ a right-angled triangle is formed iii) If $a^2 > b^2+c^2$ a obtuse angled triangle is formed iv) If $a^2 < b^2+c^2$ a acute angled triangle is formed																										

	5#	Write a c Program to find the area and perimeter of the different Shapes i) Rectangle ii) Circle iii) Triangle iv) Cube		
	6#	C Program to find out the ASCII value of a character.		
	7#	C Program to check whether an alphabet is vowel or consonant.		
6	1#	Develop a flow chart/algorithm and write an interactive program in C to find the week day by entering corresponding digit from the keyword (from 1 to 7) using switch case.		
	2#	Develop a flow chart/algorithm and write a program to reverse and to sum of digits of a number which you entered from the keyboard.		
	3#	Armstrong numbers are those numbers whose sum of cubes of each digit is equal to that number. For example: $153 = 1^3 + 3^3 + 5^3$. Write a program to find all Armstrong Number in the range of 0 and 999.		
	4#	Write a program to check the entered numbered is palindrome or not. Noted that palindrome means a number and its reverse number is same. For example: 1221.		
	5#	Write a c program to print Fibonacci series: 0,1,1,2,3,5,8,13,.....		
7	1#	C Program to check leap year. All test cases should be present in the in the program.		
	2#	Program to convert string from upper case to lower case and Lower to upper case.		
	3#	Find largest element of given array.		
	4#	C program to find sum of array elements.		
	5#	C Program to find number of elements in an array		
8	1#	If a 5-digit number is entered from keyboard. Write a program to print a new number by adding one to each of its digit. For example, for digit 12991 we get the output 23002.		
	2#	Write a program to print a list of prime numbers between a given ranges which you entered from the keyboard.		
	3#	Write an interactive program in C to find the factorial of a given integer.		
	4#	Write a C program that prints shape giving below by using nested loop: 1 12 123 1234 12345		

	5#	Write a program to find the LCM (lowest common divisor) and HCF (Highest Common Factor) of entered two numbers.		
9	1#	Write a C program that prints shape giving below by using nested loop <pre> 1 1 2 1 2 3 1 2 3 4 1 2 3 4 5 1 2 3 4 1 2 3 1 2 1 </pre>		
	2#	Write a C function to calculate the factorial of a number.		
	3#	Write a C function to print Fibonacci series.		
	4#	Write a C function to check whether a number is prime or not.		
	5#	Write a C function to implement binary search.		
10	1#	Program to sort array in ascending order.		
	2#	Write a program in C to add two matrices of order N. You should also mention the necessary condition for matrix addition.		
	3#	Write a program in C to find the transpose of a given matrix.		
	4#	Write a program in C to print the lower triangular and upper triangular matrix of a given matrix.		
11	1#	Write an interactive program in C to store the record of the N students of a class and print them. The record consists of Name, Class, Roll No, Enrolment, Marks.		
	2#	Write an interactive program in C to store the record of the N students of a class and arrange them rank wise. The record consists of Name, Roll no, Marks.		
	3#	Write a C program to add two distances entered by user. Measurement of distance should be in inch and feet. (Note: 12 inches = 1 foot). Use the concept of structure.		
	4#	Write a Program to accept five records of employee. The Structure is: <pre> struct { char name [25]; int age; int Basic; } </pre> <p>Calculate the total salary of employees as: Total Salary = Basic + DA + HRA DA = 10% of Basic HRA = 5% of Basic Display the name, age and total salary of the employees in descending order on the basis of total salary?</p>		

12	1#	Write an interactive program in C to create a file & store some information (name class roll no) into it.		
	2#	Write an interactive program in C to read the data from the file.		
	3#	Write an interactive program in C to count the no. of lines, characters, blank spaces from the text file.		
	4#	Write an interactive program in C to convert the all the content of a text file to uppercase.		
13	1#	Write a user defined function <i>swap()</i> in C to exchange the values of two variable with using third variable and also without using third variable. (use the concept of call be value and call by reference).		
	2#	Write a program to find the factorial of a given number using recursion.		
	3#	Write a program in C to print the Fibonacci series upto N terms using recursion.		
	4#	Write a program in C to store n elements in an array and print the elements using pointer.		
	5#	Write a function countEven (int*, int) which receives an integer array and its size, and returns the number of even numbers in the array.		
14	1#	Create table and insert at least five employee detail (Emp-id, designation, salary, address, manager etc.)		
	2#	Write SQL queries for the following: a) Display all records of employee details containing Emp-id ='1001'. b) Display all records of employee details having salary greater than the minimum manager salary. c) Display all records of employee whose name contains 'an'. d) Display all records of employee details whose manager ='Mohan'.		
	3#	Create table and insert employee detail (Emp-id , designation ,salary, address, Contact no etc.) a) List the contact no of each employee. b) List the address of employee whose Id between 1002 to 1004. c) Make a report on that employee whose address= 'Shamshad market, Aligarh'.		