Write a program in C to accept a year from the user and check whether that year is a leap year ot not.

Ramesh's basic salary is input through the keyboard. His dearness allowance is 40% of basic salary, and house rent allowance is 20% of basic salary. Write a program to calculate his gross salary.

Write a C program that takes two integers, performs a series of operations using bitwise, logical, and arithmetic operators, and evaluates the following expressions:
result1 = a & b | (a ^ b) && (a << 2);
result2 = (a > b ? a : b) + (~a + 1) * b / 2;
result3 = (++a, b += 2, a > b ? a : b);

Write a program that accepts three integers (a, b, c) and a floating-point number (d) as input. Using these values, evaluate the following expressions step-by-step and explain the logic behind the results:
result1 = (a + b) * c / d - (b % a) + (c++);
result2 = (a > b && c < d) || (a + c > b * 2);
result3 = (a & b) ^ (c | ~b) ? (a >> 1) : (b << 1);

Write a C program for the following statement.A cashier has currency notes of denominations 10, 50 and 100. If the amount to be withdrawn is input through the keyboard in hundreds, find the total number of currency notes of each denomination the cashier will have to give to the withdrawer.

Write a C program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.

Write a C program that checks if a positive integer is divisible by either 3 or 7, or both. If the integer is a multiple of 3, then the program will return true. Similarly, if the integer is a multiple of 7, then also the program will return true. If the integer is not a multiple of 3 or 7, then the program will return false.
Write a C program to convert specified days into years, weeks and days. Note: Ignore leap year.
Write a C program to take an integer is a power of 2 using bitwise operators

Write a C program to calculate the sum of the digits of a given integer. For example, for the number 1234, the sum of digits is 1+2+3+4 = 10.
Write a C program to convert a binary number (input as a string) into its decimal equivalent.

Evaluate the following expressions and show their hierarchy.
s = qui * add / 4 - 6 / 2 + 2 / 3 * 6 / god ;
(qui = 4, add = 2, god = 2, assume s to be an int)
Example - kk = 3 / 2 * 4
Stepwise hierarchy of operations and evaluation of this expression is shown below:

kk = 3 / 2 * 4
kk = 1 * 4 operation: /
kk = 4 operation: *
KK = 4
Evaluate the following expressions and show their hierarchy. s = 1 / 3 * a / 4 - 6 / 2 + 2 / 3 * 6 / g ; (a = 4, g = 3, assume s to be an int)
Using bitwise operators, determine if a given number is odd or even.
Use a ternary operator to assign grades based on a student's percentage input.
Write a program in C to accept a three-digit number from the user and check whether it is an Armstrong number. An Armstrong number is a number whose sum of the cubes of its digits equals the number itself.
For example, 153 is an Armstrong number
Write a program in C to accept three numbers from the user and determine which one is the greatest. Ensure the program handles cases where the numbers are equal.
Write a program to calculate the bill amount for an item given its quantity sold, price per piece, and discount. Note discount is 20 % of the total; which is to be subtracted from the total to give the final payable amount.

Write a C program to convert specified days into years, weeks and days.
Note: Ignore leap year.

Write a C program that accepts an employee's ID, total worked hours in a month and the amount he received per hour. Print the ID and salary (with two decimal places) of the employee for a particular month.

Write a C program that takes a string as input from the user. The program should then calculate and print the sum of the ASCII values of all the characters in the string

Maximum possible score in the particular game is 1000. Assume score of the user. Calculate the percantage of the user's score in relation to the maximum available score.
Convert userScore to float to make sure that the division is accurate.

Enlist data types and its qualifiers used in C language. Write a program to find the size of different data types using the "sizeof" operator.
Write a C program to convert for converting temperature in Celsius to Fahrenheit, Print both the values up to 3 digits after decimal point
Two variables a abd b contain values 10 and 20. Wrie a program to interchange the contentc of a abd b without using a third variable

Write a C program to read temperature in centigrade and display a suitable message according to temperature state below :
Temp < 0 then Freezing weather
Temp 0-10 then Very Cold weather
Temp 10-20 then Cold weather

Temp 20-30 then Normal in Temp
Temp 30-40 then Its Hot
Temp >=40 then Its Very Hot

Write a program in C that reads a forename, surname and year of birth and displays the names and the year one after another sequentially.

Write a C program that prompts the user to input three integers. The program should:

Check and display whether each integer is even or odd using the conditional operator.
Use relational and logical operators to determine whether all three integers are equal, any two are equal, or all three are distinct.
Display the results using unformatted output functions

1) Accepts an integer input from the user and checks if it is even or odd using a bitwise operator. If the number is even, increment it using the increment operator and check if the incremented value is divisible by 3 using a conditional operator. If it is divisible by 3, print "Incremented value is divisible by 3." If the number is odd, decrement it using the decrement operator and display the binary representation of the decremented value using a loop and the bitwise AND operator.
Write a program to display all leap years between two given years (inclusive).Input the start year and end year from the user.Print all leap years in that range, one per line.
Write a C program that calculates the volume of a sphere.
Write a C program to find the third angle of a triangle if two angles are given.
Write a program to accept temperature in Fahrenheight and convert it into celsius

Write a ternary operator to assign a grade based on a student's marks (marks). If marks are greater than or equal to 90, assign grade 'A'. If marks are between 75 and 89 (inclusive), assign grade 'B'. Otherwise, assign grade 'C'.
Write a ternary operator statement to calculate the PWM duty cycle. The duty cycle should be determined based on the following conditions:

1) If the temperature value (Temp) is greater than or equal to 50 and the input switch (Switch) is pressed (1), then:
a) If the system mode (Mode) is automatic (1), set PWM_Duty to 75.
b) Otherwise, set PWM_Duty to 50.
2) If the above conditions are not met, set PWM_Duty to 25.
Write a program that accepts an integer input from the user and checks if it is a power of 2 using bitwise operators.

If the number is a power of 2, print "The number is a power of 2."
Otherwise, calculate the nearest power of 2 greater than the number using a loop and display it.

A cashier has currency notes of denominations 10, 50 and 100. If the amount to be withdrawn is input through the keyboard in hundreds, find the total number of currency notes of each denomination the cashier will have to give to the withdrawer.
Two numbers are input through the keyboard into two locations C and D. Write a program to interchange the contents of C and D.
Write a C program demostrating adding two float values and storing in a variable with data type int (Type casting)
wrte a C program to generate students grading system which compares score of students and puts them in a predefined class of excellent, pass and fail use relational operator

Write a program in C to calculate fibonacci series of n numbers. Take number n from the user.

Write a program to check whether a triangle is valid or not, when
the three angles of the triangle are entered through the keyboard.
A triangle is valid if the sum of all the three angles is equal to 180
degrees.

Write a program in C that takes an integer input n
(1 ≤ n ≤ 10,000) and performs the following operations:

If n is divisible by both 3 and 5, print "RadhaKrushna".
If n is divisible by 3 but not by 5, print "Radha".
If n is divisible by 5 but not by 3, print "Krushna".
Otherwise, check if n is a prime number:
If it is, print "Prime".
If not, print the sum of all digits in n that are odd.
If there are no odd digits, print "No Odd Digits".
Constraints: Use only nested if-else and avoid using external libraries for prime number calculation.
Implement a menu-driven program using a switch-case structure to manage the following options:

Calculate the factorial of a number using a while loop.
Print the Fibonacci series up to a given number using a for loop.
Check if a number is a perfect number (a number equal to the sum of its proper divisors) using a do-while loop.
Exit the program.
Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered through the keyboard. A triangle is valid if the sum of all the three angles is equal to 180 degrees
Write a program to print all prime numbers from 1 to 300. (Hint: Use nested loops, break and continue)
Write a program to simulate an ATM system. The program should:

Display a menu for the user with options:

-Check Balance
-Deposit Money
-Withdraw Money
-Exit
Use a switch-case statement to handle the selected option.
Maintain a balance variable and update it for deposits and withdrawals.
Use if-else statements to ensure withdrawals do not exceed the balance and display an error message if it does.
Allow multiple transactions using a do-while loop until the user selects the exit option.
Write a program to simulate a shopping cart. The program should:

Display a menu of items with their prices.
Allow the user to add items to the cart by entering the item number.
Use a while loop to allow multiple items to be added.
Calculate the total price of items in the cart and Display it.
Write a program to check whether a number is a Krishnamurty number or not. A Krishnamurty number is one whose sum of factorial of digits equals the number.
Get the lengths of three sides of a triangle. Check whether the tri angle can be formed or not. If possible then classify the triangle as equilateral, isosceles or scalene. Otherwise, if the triangle cannot be formed give the user a chance to re-enter the lengths of the sides or terminate the program.
Write a program to simulate a simplified vending machine using a switch-case statement. The vending machine should:
Allow the user to select a product by entering a number (1-5).
Accept payment in multiples of 5 using a while loop until the total equals or exceeds the product price.
Use an if-else structure to provide change if the payment exceeds the price.
Use a goto statement to restart the transaction if the user provides invalid input (e.g., negative payment or invalid product number).
Products and their prices:

1: Chips ($25)
2: Soda ($20)
3: Candy ($15)
4: Juice ($30)
5: Exit
Write a program in C to accept a positive integer from the user and check whether it is a Perfect Number. A number is perfect if the sum of its proper divisors (excluding the number itself) is equal to the number.
Write a C program that accepts a year from the user and checks if it is a leap year or not using a nested if-else control structure. A year is a leap year if:

It is divisible by 4 and not divisible by 100, or
It is divisible by 400.

Write a C program that takes a number N and prints a pyramid pattern of numbers. The number N specifies the number of rows, and each row should contain numbers incremented by 1. For example, for N = 5:

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

In a company, worker efficiency is determined on the basis of the time required for a worker to complete a particular job. If the time taken by the worker is between 2 – 3 hours, then the worker is said to be highly efficient. If the time required by the worker is between 3 – 4 hours, then the worker is ordered to improve speed. If the time taken is between 4 – 5 hours, the worker is given training to improve his speed, and if the time taken by the worker is more than 5 hours, then the worker has to leave the company. If the time taken by the worker is input through the keyboard, find the efficiency of the worker.

Write a C program to print the following character number pyramid as:

1
B B
2 3 4
D D D D
5 6 7 8 9

Write a program to print a pyramid of stars (*) using nested loops.

Create a program to calculate the simple interest based on principal, rate, and time provided by the user.

Write a program in C to accept the marks of a student (out of 100) and assign a grade based on the following criteria:

Marks >= 90: Grade A
Marks >= 75 and < 90: Grade B
Marks >= 50 and < 75: Grade C
Marks < 50: Fail

Write a program in C to calculate the electricity bill based on the number of units consumed. The billing rates are as follows:

Units <= 100: ₹1.50 per unit
Units > 100 and <= 300: ₹2.00 per unit
Units > 300: ₹3.00 per unit

Display the total bill amount based on the entered units.

Write a program to determine whether an entered character is a vowel or not.

Write a C program that accepts a sequence of different values and calculates the sum of the values before and after the maximum value.
The sum of the values before the maximum value is 0, if there are no values before the maximum.
Similarly, the sum of the values after the maximum value is 0, if there are no values after the maximum.

Sample Date:

1 2 3 -> 3 0
1 2 9 4 5 -> 3 9
2 2 2 2 -> 0 6

Write a C program to check whether a number is negative, positive or zero.

Develop a C program for a simple number guessing game using a switch statement."

Game Rules:

The program randomly generates a secret number between 1 and 100.
The user is prompted to guess the secret number.
The program provides feedback to the user:
"Too high!" if the guess is higher than the secret number.
"Too low!" if the guess is lower than the secret number.
"Congratulations! You guessed the number." if the guess is correct.
The user gets a limited number of attempts (e.g., 7 attempts).

A five-digit number is entered through the keyboard. Write a program to obtain the reversed number and to determine whether the original and reversed numbers are equal or not.

Write a C program to calculate factorial of a number using a for loop.
Write a C program to check if a number is prime or not
A number is enetered through the keyboard. The number may contain 1, 2, 3, 4, 5 digits. Write a program to find the number of digits in the numbar

Write a C program that asks the user to enter a password. If the entered password is incorrect, the program should use the goto statement to allow the user to try again up to 3 times before displaying an error message.

Write a C program to read temperature in centigrade and display a suitable message according to the temperature state below: Temp < 0 then Freezing weather
Temp 0-10 then Very Cold weather
Temp 10-20 then Cold weather
Temp 20-30 then Normal in Temp
Temp 30-40 then Its Hot

Temp >=40 then Its Very Hot

Write a C program to evaluate the following mathematical expression:
z =(a^2+b^2−2abcos(θ))/(a+b+c)
where a, b, and c are integers and θ is a floating-point angle in degrees (input from the user).
Use #include<math.h> for trigonometric calculations.
Demonstrate operator precedence and associativity in the evaluation of the expression by breaking it into multiple sub-expressions.
Display all intermediate and final results using formatted output.

Create a program with the following functionalities implemented via a switch-case statement:

Option 1: Generate a multiplication table for a given number m using nested for loops, where the table goes up to m x 10.

Use break to exit the table early if a product exceeds 100.
Option 2: Check if a given number x is an Armstrong number (e.g., 153 = 1^3+5^3+3^3) using a do-while loop.

Use continue to skip checking numbers with more than 3 digits.
Option 3: Exit the program.
Write a program to generate a diamond pattern based on user input n (1 ≤ n ≤ 50).

The program should use a for loop to print the upper half and a while loop to print the lower half.
Use a continue statement to skip printing a row if the row index is divisible by 3.
Add a goto statement to restart the pattern generation if the user provides an invalid input (e.g., n < 1 or n > 50).
The pattern should look like this for n = 5:

```
*
***
*****
***
*
```

Write a C program to check whether a triangle is Equilateral, Isosceles or Scalene.
Write a C program to check whether an alphabet is a vowel or a consonant.
Write a C program to check if a given number is even or odd using a bitwise AND (&) operator.

Write a C program that finds and prints the first 10 prime numbers using a for loop. Use the break statement when 10 prime numbers have been found.
Write a C program that asks the user for an integer and an operation type:

1: Reverse the digits (e.g., 1234 → 4321)
2: Find the sum of its digits
3: Check if it's a palindrome
Use switch-case to perform the selected operation.
write a program to calculate parking charges of a vehicle.Enter the types of vehicle as a character(like c for car,b for bus,etc)and number of hours then calculate charges as given below:1)truck/bus-20 Rs per hour. 2)Car-10 Rs per hour 3)Scooter/cycle/motor cycle-5 Rs per hour
Write a program using switch-case to display suggested activities for each day of the week Example:
Monday: "Plan for the week."
Wednesday: "Mid-week review."
Saturday: "Relax and enjoy."
Sunday: "Prepare for the week ahead."
Prompt the user to enter a number (1-7) to get the activity..
Write a C program that accepts a series of positive integers from the user. The program should follow these rules:
1. Skipping Even Numbers: If the user enters an even number, the program should skip processing it.
2. Processing Odd Numbers: If the number is odd, add it to a cumulative sum and display the running total.
3. The program should run indefinitely until the user enters -1.

write a switch case for a traffic light system where the user can input a color (Red, Yellow, Green) and the program provides a corresponding action:

Red: Stop
Yellow: Slow down
Green: Go
Wrte a switch case for a smaart washing machine which can select a mode of washing 1. Quick wash -> 25 minutes 2. Deep clean -> 45 minutes 3. spin dry 15 minutes 4. rinse -> 10 minutes 5. invalid input please sleect a proper input

Write a program in C to accept n elements from the user, sort those elements and find its median and display it.

Write a program to sort a set of names stored in an array in
alphabetical order.

Write a program that generates a square matrix of size n x n (1 ≤ n ≤ 20), where each element is an integer. Use nested loops and the following rules to fill the matrix:

The diagonal elements (from top-left to bottom-right) should be filled with the square of their 1-based index (e.g., 1, 4, 9, ...).

For elements above the diagonal, assign the value as (i + j), where i and j are the 0-based row and column indices.
For elements below the diagonal, assign the value as (i * j).
If any value is divisible by 7, skip assigning it and replace it with -1.
Finally, display the matrix with proper formatting, and count how many -1 values are present in the matrix.
Write a program in C++ to perform the following operations on a 2D matrix of integers (size $N \times M$, where $1 \le N, M \le 10$):
Take input for the matrix and display it.
Transpose the matrix in place (if $N = M$), or create a new matrix for the transpose (if $N \neq M$).
Sort each row of the matrix in ascending order.
Calculate the sum of all diagonal elements (both primary and secondary diagonals).
Your program should handle edge cases like non-square matrices and empty matrices.
write C program using array. the X and Y coordinates of 10 different points are entered through the keyboard. Write a program to find the distance of last point from the first point (sum of distance between consecutive points).

Write a program to rotate an array to the left by a given number of positions.

Write a program in C to count a total number of duplicate elements in an array.
Write a C program that checks 2 elements in the array such that the difference between them is the largest. Input array[] = {10, 15, 90, 200, 110} and output: Maximum difference between 10 and 200 is 190.
Write a C program to insert the character/word in any desired location in a string. Input: enter the string: Fun to learn C Programming.
enter the word to insert: PIC
enter the position you like to insert:4
Output : the string after modification is : Fun to learn PIC C Programming.
Write a program in C to accept n integers from the user, sort them in ascending order, and find the median. Display the sorted array and the median value. Ensure your program works for both odd and even values of n.
Write a program in C to generate a square matrix of size n x n (where $1 \le n \le 20$) based on the following rules:
• Diagonal elements (from top-left to bottom-right) should contain the cube of their index (e.g., 1, 8, 27, ...).
• Elements above the diagonal should be the sum of their row and column indices.
• Elements below the diagonal should contain the absolute difference between their row and column indices.
• Replace any element divisible by 5 with -1.
Display the matrix in a well-formatted style and count how many -1 values are present.

Write a C program that takes an array and an integer element as input, and counts how many times the element appears in the array.

Write a C program that rotates the elements of an array to the left by N positions. For example, if the array is {1, 2, 3, 4, 5} and N = 2, the result should be {3, 4, 5, 1, 2}.

Twenty-five numbers are entered from the keyboard into an
array. The number to be searched is entered through the
keyboard by the user. Write a program to find if the number to
be searched is present in the array and if it is present, display
the number of times it appears in the array.
A 6 x 6 matrix is entered through the keyboard and stored in a
2-dimensional array mat[7][7]. Write a program to obtain the
Determinant values of this matrix.
Write a program to find the sum and average of elements in a one-dimensional array.
Write a program to find the largest element in a two-dimensional array.
Write a program in C to accept two strings from the user and check if they are anagrams. Two strings are anagrams if they contain the same characters in any order, ignoring spaces and case sensitivity.
Write a program in C to accept an array of integers and find the largest and smallest elements in the array. Display both the largest and smallest elements along with their positions in the array.

In a small company, there are 5 salesmen. Each salesman is supposed to sell 3 products a,b,c. Write a program using two dimensional array to print 1) the total sales by each salesman and 2) total sales of each item.

Write a C program that takes a string and two integers (n1, n2). Now reverse the sequence of characters in the string between n1 and n2. Sample Date:
("abcdxyabcd", 5, 6) -> "abcdyxabcd"
("Exercises", 1, 3) -> "exErcises"

Write a program in C to count the total number of duplicate elements in an array.
Write a program in C to merge two arrays of the same size sorted in descending order.
Write a C program to simulate the sorting of a deck of 52 playing cards. The program should first sort the cards based on their suits (e.g., Spades, Hearts, Diamonds, Clubs) and then within each suit, sort the cards by their rank (Ace, 2, 3, ..., King).

Thirty numbers are entered from the keyboard into an array. Write a program to find out how many of them are positive, how many are negative, how many are even and how many odd.

Write a C program to count how many times each element appears in an array
Write a C program to perform matrix multiplication of two 2*2 matrices

Implement a program to rotate a one-dimensional array of size N to the right by K positions.
Example:

Input: arr = {1, 2, 3, 4, 5}, K = 2
Output: {4, 5, 1, 2, 3}

Write a program in C to check whether a given matrix is an identity matrix.

Design a C program to categorize a student's grade based on their percentage:

Use an else-if ladder to categorize percentages into grades (e.g., 90-100: A, 75-89: B, 50-74: C, <50: Fail).
Include a do-while loop to allow the user to input grades for multiple students.
Use a break statement to terminate the loop when a user enters a negative percentage.

Write a program to input a sentence (character array) of at most 100 characters and perform the following:

Count the frequency of each vowel (case insensitive).
Identify the most frequently occurring character in the sentence.
Replace every vowel in the sentence with the next vowel in cyclic order (e.g., 'a' → 'e', 'e' → 'i', ..., 'u' → 'a').
Reverse the words in the sentence while preserving their order (e.g., "Hello World" becomes "olleH dlroW").
Write a program to input a 2D array of size
$N \times M$ (where $1 \le N, M \le 10$) and display its elements in spiral order (clockwise). For example, the input:
1 2 3
4 5 6
7 8 9
Should output:
1, 2, 3, 6, 9, 8, 7, 4, 5.

Ensure that your program works for rectangular matrices as well.
Write a program in C to make such a pattern like a right angle triangle with a number which will repeat a number in a row.
1
22
333
4444

Write a program to print the following pattern of numbers:
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15

Write a C program to take an MxN matrix as input and find the row with the highest sum.

Write a program that checks if two strings are anagrams (i.e., rearrangement of the same characters).

Example: "listen" and "silent" are anagrams.
In a class there are 10 students.Each student is supposed to appear in 3 tests.write a program using two dimentional arrays to print.1)the marks obtasined bt each student in diffenet subject. 2)Total amrks and average obtained by each student. 3)store the average of each student in a separate iD array so that it can be used to calculate the class average.
write a program to read sentence .then count the number of words in the sentence
Program to print the multiplication table as given below:
1 2 3 4 5
_____
1 1 2 3 4 5
2 2 4 6 8 10
3 3 6 9 12
4
5
6
7
8
9
10
Write a C program to compare two strings without using any string function.
Write a program to find the frequency of each element in an array.
Write a program to concatenate two strings using arrays.

Write a program to store and display information about 5 cars(name, year of launch and price) using an array of structures.

Define a structure named Book with members title (string), author (string), and pages (integer).

Write a recursive function that checks if a string is a palindrome. The function should:

Accept the string as input.
Compare the first and last characters of the string, then recursively check the substring without the first and last characters.
Return true if the string is a palindrome, and false otherwise.
Test the function with multiple strings (both palindromes and non-palindromes).
Write a program that defines a structure Book with the following members:

char title[100]
char author[100]
float price
Initialize an array of Book structures with sample data.
Write a function to display the details of all books.
Write a function to search for a book by title and return the book's details. If the book is not found, return a message saying the book is not available.
Demonstrate the program with 3 books.
Write a function to compute the distance between two points
and use it to develop another function that will compute the
area of the triangle whose vertices are A(x1, y1), B(x2, y2),
and C(x3, y3). Use these functions to develop a function
which returns a value 1 if the point (x, y) lines inside the
triangle ABC, otherwise a value 0.

Write a program to store and display information about multiple books (title, author, and price) using an array of structures
Write a program to manage a simple ATM system using a union for different transaction types like balance inquiry and withdrawal.
Write a C Program to Add Two Complex Numbers by Passing Structure to a Function.

Write a program in C to define a structure named Employee with fields for ID, name, and salary. Accept details of 5 employees from the user and sort them by name in alphabetical order using a function. Display the sorted list.

Write a C program that defines a function to swap two arrays of the same size without using any extra memory or a third array. The function should swap the elements of both arrays in place. After calling the function, print the modified arrays.
Define a structure Book with fields title, author, and price. Write functions to:
Add a new book.
Display book details.
Calculate the total price of all books.
Implement these functions and demonstrate their usage in a menu-driven program.
Write a program that converts a string like "124" to an integer
124.
Write a program that replaces two or more consecutive blanks
in a string by a single blank. For example, if the input is
Grim return to the planet of apes!!
the output should be
Grim return to the planet of apes!!
Write a recursive function to find all prime numbers up to a given number.
Create a program to manage bank account details (account number, name, balance) using structures. Include deposit and withdrawal functionalities.

Write a program in C to define a structure named Employee with fields for id, name, and salary. Accept details of 5 employees from the user and sort them by salary in ascending order using a function. Display the sorted list.

Write a program using a function to calculate the hypotenuse of a right-angled triangle.

Write a program in C to separate odd and even integers into separate arrays using Function.
Test Data :
Input the number of elements to be stored in the array :5
Input 5 elements in the array :
element - 0 : 25
element - 1 : 47
element - 2 : 42
element - 3 : 56
element - 4 : 32
Expected Output :
The Even elements are :
42 56 32
The Odd elements are :
25 47
Design a structure named "Car" to store details like car ID, model, and rental rate per day. Write a C program to input data for three cars, calculate the total rental cost for a specified number of days, and display the results.
Write a program in C to find the sum of the series 1!/1+2!/2+3!/3+4!/4+5!/5 using the function.

Design and implement a C program to manage student information using structures."

Requirements:

Define a structure named Student to represent a student. The structure should include the following members:

roll_no: An integer to store the student's roll number.
name: A character array to store the student's name.
marks: An array of integers to store the marks obtained in five subjects (e.g., Math, Science, English, History, Geography).

There is a structure called employee that holds information like employee code, name and date of joining. Write a program to create an array of structures and enter some data into it. Then ask the user to enter current date. Display the names of those employees whose tenure is greater than equal to 3 years.

Write a C program to find a factorial of a number using user-defined function

Write a C program for storing information of a student like (student ID, students name, students mark) using structure
Design a program to store and display a Date using a structure with fields for day, month, and year. In the same program, use a union to store either a timestamp (as an integer) or a formatted_date (as a string). Provide functions to input and display both formats of the date.

Write a program to define a structure Product with fields product_id, product_name, and price. Create an array of 5 Product structures, accept data for each product, and write a function to calculate and display the total price of all products.
Define a union Shape containing structures for Circle, Rectangle, and Triangle with relevant parameters.
Write a function to calculate and return the area based on user selection.

Design a structure named "Car" to store details like car ID, model, and rental rate per day. Write a C program to input data for three cars, calculate the total rental cost for a specified number of days, and display the results.

Write a C program that:
Accept number of rows (R) and colums (C) of matrices.
Accepts two RxC matrices from the user.
Performs matrix addition.
Displays the resultant matrices after operation.

Create a structure Patient with details: name, age, disease, admission_date, and bill_amount.
Implement functions to:
Accept and display patient records.
List all patients suffering from a specific disease.
Calculate and print the total revenue generated by all patients.
Define a structure Complex with fields real and imaginary.
Write functions to:
Add two complex numbers.
Multiply two complex numbers.
Find the magnitude of a complex number.
Write a program in C to compare two strings without using string library functions.

Write a C program to input a 3×3 matrix from the user and compute the sum of its diagonal elements. Display the entered matrix and the calculated sum.

Define a union ExamScore containing fields for three different types of exams: marks_100 (out of 100), grade (A/B/C/D), and percentage.
Implement a program that takes student input and selects the appropriate format for storing scores based on the type of exam.

Write a program for a simple library management system using a structure . The structure should store:

Book Title (string).
Book ID (integer).
Book Details (using a union to handle two types of books):
Regular Book (with price and number of pages).
E-Book (with file size and format).
The program should allow the user to select a book type and input its details. Then, display the details based on the selected book type.

Write a C program to find the LCM (Least Common Multiple) of two numbers using a user-defined function.
Write a C program to find the GCD (Greatest Common Divisor) of two numbers using a recursive function.
Write a C program that takes the temperature in Celsius from the user and converts it to Fahrenheit using the formula: F=(9/5)*C+32 Return the Fahrenheit temperature from a function and display it

Write a program in C to accept dimensions of two matrices and to check if matrix multiplication is possible, if it is possible then multiply two matrices using pointers.

Design a function that:

Defines a structure Book with members title, author, and price.
Dynamically allocates memory for an array of Book structures using malloc().
Initializes the structure members using user input.
Prints the details of all books.
Frees the dynamically allocated memory after use.

Write a program in C to print all permutations of a given string using pointers.
Expected Output :

The permutations of the string are :
abcd abdc acbd acdb adcb adbc bacd badc bcad bcda bdca bdac cbad cbda cabd cadb cdab cdba db
ca dbac dcba dcab dacb dabc

Write a program to implement matrix addition and subtraction using pointers.
Write a program to count the frequency of a specific word in a file.
Write a C program to search an element in an array using pointers. Input: Enter size of array: 10
Enter elements in array: 10 20 30 40 50 60 70 80 90 100
Enter element to search: 30

Output: 30 is found at 3 position.

Write a program in C to transpose a matrix using pointers.
Write a program in C to reverse a string using pointers.
Write a C program that dynamically allocates memory for an array of integers. Allow the user to input the size of the array, allocate memory, input values, and then ask the user if they want to resize the array. Reallocate the memory dynamically if the user chooses to add more elements, and maintain the previous values in the new array.

A 5-digit positive integer is entered through the keyboard,
write a function to calculate sum of digits of the 5-digit
number:
(1) Without using recursion - call by reference
(2) Using recursion
Write a function to compute the distance between two points
and use it to develop another function that will compute the
area of the triangle whose vertices are A(x1, y1), B(x2, y2),
and C(x3, y3). Use these functions to develop a function
which returns a value 1 if the point (x, y) lines inside the
triangle ABC, otherwise a value 0.
Write a program to dynamically allocate memory for an array of integers and input values into it.
Create a program to reverse a string using pointers.
Write a program in C to swap two integers using pointers. Define a function that accepts two integer pointers, swaps their values, and displays the result in the main function.

Write a program to pass arguments to a function by reference and to another function by value and show how they differ.
write a program to show that pointers can be used to return multiple values from a function without having to explicitly mention them as return values.
Write a program in C to store n elements in an array and print the elements using a pointer.

Write a program in C to find the largest element using Dynamic Memory Allocation.
Write a C program to copy one string to another using pointers.
Design and implement a C program to manage a dynamic array of integers. The program should allow the user to:

Insert an integer at any position in the array.
Delete an integer from any position in the array.
Display the elements of the array.
The program should dynamically allocate memory for the array using malloc() and reallocate memory using realloc() as needed to accommodate insertions and deletions

Given three variables x, y, z write a function to circularly shift their values to right. In other words if x = 5, y = 8, z = 10, after circular shift y = 5, z = 8, x =10. Call the function with variables a, b, c to circularly shift values.

Write a C program for dynamic memory allocation using malloc and free
Write a C program to modify elements of an array using pointers
Write a program that defines a structure Student with name, roll_no, and an array marks[5]. Dynamically allocate memory for marks[] based on the number of subjects. Implement functions to input and display student data.

Dynamically allocate a MxN matrix using malloc().
Implement functions to:
a) Accept and display matrix elements.
b) Compute the transpose of the matrix without using extra memory.
Free the allocated memory properly.

Write a program in C to find the factorial of a given number using pointers.

Write a C program that:
Opens a file in write mode and writes a series of numbers (1 to 10) to the file.
Closes the file and reopens it in read mode.
Reads the numbers from the file and computes their sum.
Displays the numbers and their sum.

Write a program that:
Dynamically allocates an array of N integers.
Uses pointer arithmetic to:
1) Reverse the array without using extra space.
2) Find the maximum and minimum values.
3) Sort the array using pointer-based bubble sort.

Write a program in C to check Armstrong and Perfect numbers using the function.

Write a C program to demonstrate the use of pointers in function arguments. Your program should:

1. Define a function `swap(int *a, int *b)` that swaps the values of two integers using pointers.
2. In the `main()` function, take two integer inputs from the user and call the `swap()` function.
3. Display the values before and after swapping.

Implement a calculator using function pointers.
Create separate functions for addition, subtraction, multiplication, and division.

Store function pointers in an array and call functions dynamically based on user input.

write a program tp read the details of a student and then print it on the screen as well as write it into a file

Write a program using pointers to compute rhe sum of all interger elements stored in an array.
Write a function (using pointer parameter) that compares two integer arrays to see whether they are identical. The function returns 1 if they are identical and 0 otherwise.
Write a program that takes two strings as input and concatenates them using pointers. Don't use standard library functions for string manipulation.