Sunday, 6 April 2025

Assignment 1

🔷 1. Swap Two Variables Without a Third Variable

Description: Write a program to swap the values of two variables using arithmetic.

🔷 4. Find the Largest of Three Numbers

Description: Write a program that takes three numbers as input and determines the largest one using if-else statements.

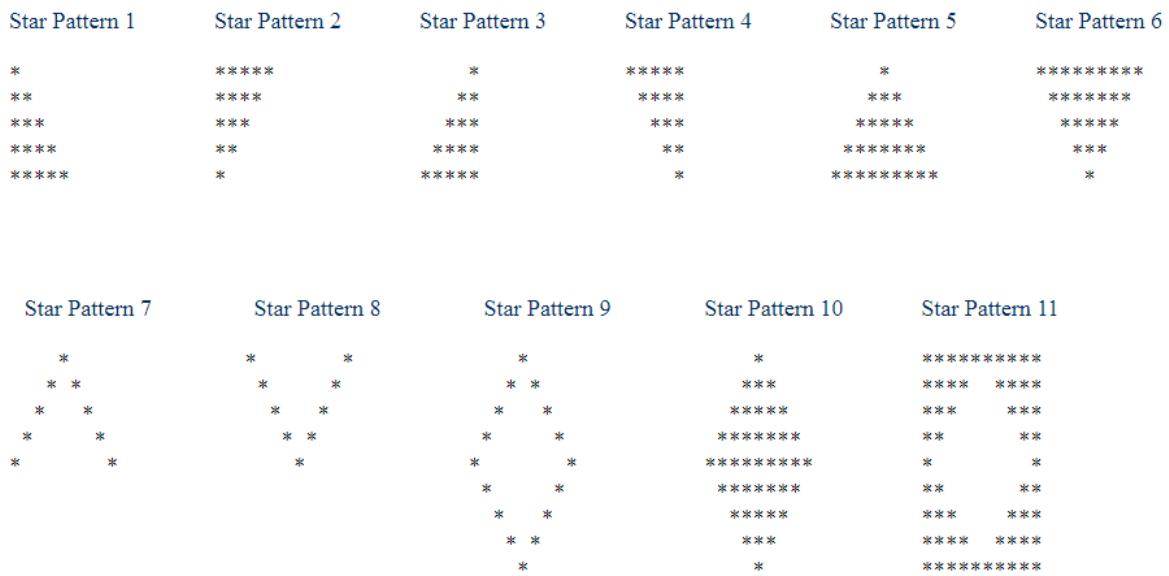
🔷 5. Check Leap Year

Description: Accept a year from the user and check whether it is a leap year using conditional logic.

🔷 6. Simple Calculator using Switch

Description: Build a calculator that performs addition, subtraction, multiplication, and division based on user input using a switch statement.

🔷 8. Print Following Patterns



🔷 9. FizzBuzz Problem

Description: Print numbers from 1 to 100. For multiples of 3, print "Fizz", for multiples of 5 print "Buzz", and for multiples of both 3 and 5, print "FizzBuzz".

🔷 10. Check Prime Number using Function

Description: Create a function that takes a number as input and returns true if it is a prime number, else false.

🔷 11. Factorial using Function

Description: Write a function that calculates the factorial of a given number using iteration or recursion.

🔷 12. Square of a Number using Arrow Function

Description: Write an arrow function that takes a number as input and returns its square.

🔷 13. Find Max and Min in an Array

Description: Write a program that finds the maximum and minimum values in a numeric array.

🔷 14. Remove Duplicates from Array

Description: Given an array with duplicates, return a new array with only unique elements.

🔷 15. Reverse an Array Without Built-in Methods

Description: Reverse an array manually using a loop without using reverse().

🔷 16. Check Palindrome String

Description: Write a function that checks if a given string is a palindrome (same forwards and backwards).

🔷 17. Count Vowels in a String

Description: Accept a string and count how many vowels (a, e, i, o, u) it contains.

🔷 18. Capitalize First Letter of Each Word

Description: Given a sentence, capitalize the first letter of every word using string methods.

🔷 19. Square Array Elements using map

Description: Use the map() method to return a new array with the square of each element from the original array.

🔷 20. Filter Even Numbers using filter

Description: Use the filter() method to create a new array that contains only even numbers from a given array.