

Assignment No.03

1. Write a program to check if a number entered by the user is positive, negative, or zero using if-else.
2. Write a program that takes a number as input and checks whether it is even or odd using if-else.
3. Write a program to find the largest of three numbers using if-else.
4. Write a program that asks the user to enter marks and determines the grade using multiple if-else:
 - Marks ≥ 90 : **Grade A**
 - Marks ≥ 80 : **Grade B**
 - Marks ≥ 70 : **Grade C**
 - Marks ≥ 60 : **Grade D**
 - Otherwise: **Fail**
5. Write a program that checks whether a year entered by the user is a leap year or not using if-else.
6. Write a program to check whether a character entered by the user is a vowel or consonant using if-else.
7. Write a program to calculate the electricity bill based on the following conditions:
 - Up to 100 units: ₹5 per unit
 - 101 to 300 units: ₹7 per unit
 - Above 300 units: ₹10 per unit
 - Display the total bill.
8. Write a program that takes an integer from the user and determines whether it is a multiple of both 3 and 5 using if.
9. Write a program to check whether an entered character is uppercase, lowercase, digit, or special symbol using multiple if-else.
10. Write a program to determine the eligibility of a person to vote based on their age (age ≥ 18 is eligible).

11. Write a program to print numbers from 1 to 10 using a for loop.
12. Write a program to find the sum of the first n natural numbers using a for loop.
13. Write a program to print the multiplication table of a number entered by the user using a for loop.
14. Write a program to print the factorial of a number using a while loop.
15. Write a program to reverse a given number using a while loop.
16. Write a program to check whether a number is prime or not using a for loop.
17. Write a program to calculate the sum of digits of a number using a while loop.
18. Write a program to print the Fibonacci series up to n terms using a for loop.
19. Write a program to display the sum of even numbers between 1 and 50 using a for loop.
20. Write a program to generate the following pattern using a nested for loop:

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