

### Basic Conditional Questions

1. Write a program that takes an integer input from the user. Check if the number is even or odd, and print the result.
2. Create a program that takes a temperature in Celsius as input and converts it to Fahrenheit. If the temperature is below 0°C, print "Freezing point"; if it's above 100°C, print "Boiling point."
3. Write a Python program that asks the user to input a year and checks if it is a leap year. (Hint: A leap year is divisible by 4, but not by 100 unless it is also divisible by 400.)
4. Create a program that accepts a score (0–100) as input and prints the grade according to the following ranges:
  - 90–100: "A"
  - 80–89: "B"
  - 70–79: "C"
  - 60–69: "D"
  - Below 60: "F"

### Intermediate Conditional Questions

5. Write a program that accepts three numbers from the user and prints the largest number.
6. Create a program that prompts the user to enter two numbers and an operator (+, -, \*, /). Perform the appropriate operation and display the result. If the operator is invalid, display an error message.
7. Write a program that takes a string as input and checks whether it is a palindrome (a word that reads the same forwards and backwards).
8. Develop a program that accepts a person's age and prints whether they are an "Infant" (0–1 years), "Child" (2–12 years), "Teenager" (13–17 years), "Adult" (18–64 years), or "Senior" (65+ years).

### Advanced Conditional Questions

9. Write a program that simulates a simple login system. The program should ask for a username and password. If the username is "admin" and the password is "1234", print "Login successful"; otherwise, print "Invalid username or password."
10. Create a program that accepts a number as input and checks whether the number is prime (only divisible by 1 and itself). If it is prime, print "Prime"; otherwise, print "Not prime."
11. Develop a rock-paper-scissors game. The program should ask the user to choose "rock," "paper," or "scissors" and then generate a random choice for the computer. Display the result of each round and who won (or if it was a tie).

12. Write a program that asks for a date (day, month, and year) as input and checks if the date is valid, taking into account the number of days in each month and leap years.