

1. **Scenario:** A system checks if a user is eligible to vote based on their age.

Write logic to ask the user for their age and determine if they are eligible to vote based on whether they are 18 or older.

- Ask user to enter their age
- If the user is greater than or equal to 18. The user is eligible to vote.
- Otherwise, the user is not eligible to vote.

2. **Scenario:** A program processes a list of numbers and needs to find the largest value.

Write logic to identify and return the largest number from a given list.

- Read the list of number
- Consider the first value as largest value
- Compare the first value with other value. If greater update the first value
- Print the value.

3. **Scenario:** A company provides employees with a 10% bonus if their salary exceeds \$50,000.

Write logic to determine the bonus amount based on the given salary.

- Assign the employees salary as list
- Check the salary is greater than 50,000.
- If salary exceeds. Add 10% of bonus to that salary.
- Otherwise add 0% bonus to that salary
- Print the salary

4. **Scenario:** A program evaluates a number to determine if it is even or odd.

Write logic to check whether a given number is even or odd.

- Get the input from user
- Check the input divided by 2.
- If divided by 2. Then print even number
- Otherwise print odd number

5. **Scenario:** A text-processing tool reverses a given word or sentence for formatting purposes.

Write logic to take a word or sentence as input and produce its reversed version.

- Get the input as word or sentences
- Convert the string into list of character
- Reverse the order of the character
- Append the reverse order character as string
- Print the string

6. **Scenario:** A grading system determines whether a student has passed or failed based on their score.

Write logic to check if a student has passed a subject by scoring at least 40 marks.

- Get the student score as input
- Check the score is less than 40
- Print student failed
- Otherwise print student passed

7. **Scenario:** A retail store offers a 20% discount if a customer's total order exceeds \$100. Write logic to calculate the final amount to be paid after applying the discount.

- Get the customer total order
- If the customer order greater than \$100
- Reduce 20% discount from total order and print the amount
- Otherwise add 0% discount to total order and print

8. **Scenario:** A banking system processes withdrawal requests and ensures the user has enough balance.

Write logic to check if a user has enough balance before allowing a withdrawal and update the remaining balance accordingly.

- Read input from user account balance and withdraw amount
- If withdraw amount is less than or equal to account balance. Process withdraw
- Subtract account balance and update account balance. Print current balance.

- Otherwise print “Insufficient amount”



9 . **Scenario:** A calendar system verifies whether a given year is a leap year based on standard leap year rules.

Write logic to determine whether a given year is a leap year.

- Get the input as year
- If the year divided by 4 not by 100. Print leap year
- If the year divided by 400 not by 100. Print leap year
- If the year divided by 100 not by 400. Print not leap year.

10. **Scenario:** A program filters out only even numbers from a given list.

Write logic to extract and return only the even numbers from a list.

- Get the list of number
- Iterate the number one by one
- Check the number is divided by 2
- If divisible then add the number to new list
- Return the new list