### 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.

**Logic for the Given Scenario:**

1. Get the input from the user in a variable called age
2. Use if condition —-> age >=18 —> Eligible to Vote
3. Else —--> 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.

**Logic for the Given Scenario:**

1. Create a list using a name called number
2. Use a sorted() in-built function in Python —> to sort the items in the list in the ascending order
3. Reverse the given list - we get the descending order
4. Print the index[0]

### 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.

**Logic for the Given Scenario:**

1. First check the employee is eligible for 10% bonus using If condition.
2. If eligible, find the 10% bonus using the mathematical operations

### 

### 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.

**Logic for the Given Scenario:**

1. Get the input from the user in the variable name **number**
2. Use if condition —--> number %3==0 —> The given number is Odd
3. Else –-> The given number is Even

### 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.

**Logic for the Given Scenario:**

1. Get the input from the user as a string
2. Use Python Slicing to reverse the given string [::-1]

### 4. **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.

**Logic for the Given Scenario:**

1. Get the mark from the user
2. Use if condition —-> marks >=40 —> The Student is Pass
3. Else —> The Student is Fail

### 5. **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.

**Logic for the Given Scenario:**

1. Get the total order from the user.
2. Use if condition —-----> total\_order >100 —>The customer is eligible for 20% discount
3. Exceeds —--> $100, Calculate 20 % discount
4. Calculate the total price after 20 % discount
5. Else —---> No discount and Print the Total Order Price

### 6. **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.

**Logic for the Given Scenario:**

1. Get the customer account's current balance
2. Get the withdrawal amount from the customer
3. If condition & check the balance amount
4. Else —-->insufficient balance

### 1. **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.

**Logic for the Given Scenario:**

1. Get the year from the user
2. If condition and check leap year using —-->year%4==0, year%100!=0 and year %400 ==0
3. Else —--->Not a leap year

### 2. **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.

**Logic for the Given Scenario:**

1. Create a list using numbers

2. Use for loop

3. Use if condition —-->%2==0

### 

### 

### 