1. **Scenario:** A system checks if a user is eligible to vote based on their age.[Text Wrapping Break] 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.

Answer:

1.Request user to enter age as input

2.Check the condition if the age is 18 or older

3.If yes print ‘Eligible to Vote’

4.else print ‘Not Eligible to Vote

### **Scenario:** A program processes a list of numbers and needs to find the largest value.[Text Wrapping Break] Write logic to identify and return the largest number from a given list.

Answer:

1.declar a variable with numbers in a list type

2.declar a variable called largest

2.Iterate the list one by one

3.Set the first value to the largest number variable

4. Each iteration compares the value with the largest variable value.

5. If the iterates value greater than the largest variable, value replaces that with the temporary variable.

6. Once the iteration is completed, the value of the largest hold value is the largest value in the list.

7.print the value

### **Scenario:** A company provides employees with a 10% bonus if their salary exceeds $50,000.[Text Wrapping Break] Write logic to determine the bonus amount based on the given salary.

Answer:

1.Read the salary of the employee

2.Check whether the salary exceed $50000

3.if yes calculate 10% bounus amount on the salary

4.else bonus is zero

### **Scenario:** A program evaluates a number to determine if it is even or odd.[Text Wrapping Break] Write logic to check whether a given number is even or odd.

Answer:

1.Read a number

2.check the number divisible by 2

3.if yes then print the number is even

4.else print the number is odd

### **Scenario:** A text-processing tool reverses a given word or sentence for formatting purposes.[Text Wrapping Break] Write logic to take a word or sentence as input and produce its reversed version.

Answer:

1.Request an input from user as string

2.Convert the string into a list

3.Do reverse the list and then join it as string

4.print the string

### **Scenario:** A grading system determines whether a student has passed or failed based on their score.[Text Wrapping Break] Write logic to check if a student has passed a subject by scoring at least 40 marks.

Answer:

1.Read student marks

2.Check the marks whether greater or equal to 40

3.If yes print Pass

4.else print Fail

1. **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.

Answer:

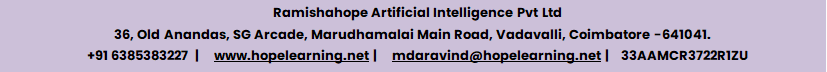
1.Claculate total amount of the order

2.Check the total amount exceed $100

3. If yes, reduce the value by 20% of the order value before returning the total value.

4. Else return the total value of the order without reducing.

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

[Text Wrapping Break] Write logic to check if a user has enough balance before allowing a withdrawal and update the remaining balance accordingly.

Answer:

1.Read the withdrawal amount from the withdrawal request

2.Check the user balance is greater than withdrawal amount

3.if greater proceed for withdrawal

4.else denied withdrawal

### **Scenario:** A calendar system verifies whether a given year is a leap year based on standard leap year rules.[Text Wrapping Break] Write logic to determine whether a given year is a leap year.

Answer:

1.Read the given year

2.Check whether the given year is divisible by 4 or100 or 400

3.Print the given year is leap year

4.Else print the given year is not a leap year

### **Scenario:** A program filters out only even numbers from a given list.[Text Wrapping Break] Write logic to extract and return only the even numbers from a list.

Answer:

1.Read the list of numbers

2.Iterates the list and check each number divisible by 2

3.if divisible by 2 store in new list and return

