### **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.

**Ramishahope Artificial Intelligence Pvt Ltd**

**36, Old Anandas, SG Arcade, Marudhamalai Main Road, Vadavalli, Coimbatore -641041.**

**+91 6385383227 |** [**www.hopelearning.net**](http://www.hopelearning.net/) **|** [**mdaravind@hopelearning.net**](mailto:mdaravind@hopelearning.net) **| 33AAMCR3722R1ZU**

**Answer**: Get the user input by input function

Check if age is equal or greater than 18, if yes print “Eligible to vote”

Else print “not eligible”

### **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.

**Answer:** Get the list of number

Print largest number by using max function

### **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.

**Answer:** Get the salary as input

If salary greater than 50000 print calculated salary with 10% bonus

Else print no bonus

### **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.

**Answer:** Get the user input

If number is divisible by 2 then print number is even

Other number is odd

### **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.

Answer: Get the input word

Reverse the string Word[::-1] and store it in a variable

Print the variable

### **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.

**Answer:** Get the user input by input function

Check if mark is equal or greater than 40, if yes print “Pass

Else print “Fail”

### **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**:Get the salary as input

If salary greater than 100 print calculated amount with 20% discount by subtracting the discount from amount

Else print no discount

**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.

**Answer:** Read the withdrawal and balance amount

If Withdrawal amount less than balance amount, then proceeds withdrawal and print balance amt by subtracting from.

If Withdrawal amt greater than balance amt, print “insufficient bal”

### **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.

**Ramishahope Artificial Intelligence Pvt Ltd**

**36, Old Anandas, SG Arcade, Marudhamalai Main Road, Vadavalli, Coimbatore -641041.**

**+91 6385383227 |** [**www.hopelearning.net**](http://www.hopelearning.net/) **|** [**mdaravind@hopelearning.net**](mailto:mdaravind@hopelearning.net) **| 33AAMCR3722R1ZU**

**Answer**: Get the input of the year

If year divisible by 4 and 400 it is a leap year

Else not a leap year

### **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.

**Answer**: get a list of number

**Read each number using for loop**

**Check if number divisible by 2 then store it in a variable**

**Print the variable**