### **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:**

**1.Get an input(age) from user**

**2.Using if condition compare age**

**3.If user greater than 18 , they are eligible for vote else 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.

**Logic:**

**1.List of numbers already given.**

**2.Using max() function , it will find largest value in list**

**3.Return largest number**

1. **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:

1.Get an input(salary)from user

2.If salary more than 50,000 add 10% bonus.

3.If salary less than 50,000 no bouns

### **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:**

**1.Get a number from user.**

**2.If number divisible by 2 returns remainder 0, ie) even number.  
 3.If number return remainder 1, ie) Odd number**

### **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:**

**1.Give an input word in list**

**2.By using reverse and join method reverse the word.**

### **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:**

**1.Get an input value as student’s scores**

**2.if score more than 40 , print Student has passed other student got failed.**

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.

**Logic:**

**1.Get an order price from customer.  
 2.If order price exceeds $100 , give a 20% discount.**

**3.Calculate (order price\*(discount %/100))=discount price.**

**4.Order price-discount price=Final amount**

**5.print Final amount**

### **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.

**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**

**Logic:**

**1.Enter withdrawal amount**

**2.If withdrawal amount is higher than balance amount, print “Insufficient balance” else print “Enough balance” and allow to withdrawal**

**3.To update main balance amount = Withdrawal amount-Balance amount**.

### **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:**

**1.Get an input (year)**

**2.If year divisible by 4,100 and 400 it is a leap year**

**3.If year not divisible by 100 also 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.

**Logic:**

**1.using loop condition check number in list is divisible by 2 , if yes extract even numbers from list**

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