### **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.

1. Get user age as input
2. Use if condition, to check if age is >= 18
3. If the condition is True, print “Eligible to Vote”
4. If the condition is False, print ”Not Eligible to Vote”

### **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.

1. Get list of numbers in a list variable .
2. Use function max() on list variable to identify the largest number
3. Print this value as the largest number

### **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.

1. Get salary in a variable.
2. Check if salary > 50,000
3. If the condition is True, bonus is calculated as salary \* 10 / 100
4. If condition is False, bonus is set to 0
5. Print the 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.

1. Get input number to a variable num
2. Write if statement to check if num%2 is equal to 0.
3. If the condition is True, print Even number.
4. If the condition is False, print 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.

1. Get the word or sentence as input in a variable inpVar.
2. Create another variable called revVar and initiate with blank ’’
3. In for loop, for i in reversed(strvar) - we use reversed function and add revVar + i. this way, the new variable revVar gets reversed string stored
4. Finally print revVar outside the loop

### **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.

1. Get marks in a variable marks.
2. Use if logic to check if the marks > 40
3. If the condition is True, print The student has passed
4. If the condition is not true, print the student has failed in the subject
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.
6. Get the total order amount as input
7. Write if condition to check if total is > 100
8. If the condition is true, calculate discount
9. Discounted total = total - (total \* 20 / 100)
10. In else condition, total remains unchanged.

### **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.

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1. Get the withdrawal amount in a variable amount.
2. Get the existing balance from the account
3. With if condition, check if the existing balance is > withdrawal amount
4. If condition is true, allow withdrawal and print existing balance - withdrawal amount
5. If condition is false, don’t allow withdrawal and print insufficient balance

### **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.

1. Get year as input
2. Calculate year % 4
3. If this value is == 0 print it’s a leap year
4. Else print its 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.

1. Get the list of numbers in a variable
2. For temp in list of numbers,
3. If temp%2 == 0, print the number
4. Else, do not print the number

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