### **Scenario:** A system checks if a user is eligible to vote based on their age.

**Logic:**

1. Ask user to enter his/her age
2. Check if age is 18 or older
3. Print “Eligible for vote” if yes
4. Print “Not Eligible for vote” otherwise.

### **Scenario:** A program processes a list of numbers and needs to find the largest value.

**Logic:**

1. Read the list of numbers.
2. Assign first number in the list as current largest number
3. Iterate each number from the list
4. Check current largest number is less than the next number in the list
5. If yes, then update the largest number.
6. Repeat the steps c ,d,e till end of the list
7. Return the largest value

### **Scenario:** A company provides employees with a 10% bonus if their salary exceeds $50,000.

**Logic:**

1. Read user’s salary
2. Check if salary is greater than $50,000, then calculate 10% bonus amount
3. Otherwise set bonus to 0
4. Return calculated bonus amount

### **Scenario:** A program evaluates a number to determine if it is even or odd.

**Logic:**

1. Read the number to evaluate
2. Check number is divisible by 2
3. If yes , print number is even
4. Otherwise number is odd

### **Scenario:** A text-processing tool reverses a given word or sentence for formatting purposes. **Logic:**

1. Read the input word or sentence
2. Convert the word or sentence as list of characters
3. Reverse the character list
4. Join the characters to form string
5. Print the reversed word or sentence

### **Scenario:** A grading system determines whether a student has passed or failed based on their score. **Logic:**

1. Read the students mark
2. Check if the mark is greater than or equal to 40
3. If yes, print Pass
4. If No, print Fail
5. **Scenario:** A retail store offers a 20% discount if a customer’s total order exceeds $100.

**Logic:**

1. Read the customer’s total order
2. Check if total order is greater than $100
3. If yes, calculate 20% discount of the total amount
4. Otherwise set discount amount is 0
5. Calculate final amount by reducing discount amount from total order amount.
6. Return final amount

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

### **Logic:**

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1. Ask user to input withdrawal amount
2. Read the user’s balance
3. Check If balance is less than withdrawal amount
4. If yes, then print Insufficient balance
5. Otherwise less the withdrawal amount from balance
6. Update the remaining the balance

### **Scenario:** A calendar system verifies whether a given year is a leap year based on standard leap year rules. **Logic:**

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1. Ask user to input the year
2. Check if given year is evenly divisible by 400, Print “This is a leap year”.
3. Or check if given year is evenly divisible by 4 but not by 100, then print this is a leap year
4. Otherwise print “this is not a leap year”

### **Scenario:** A program filters out only even numbers from a given list. **Logic :**

* 1. Read the list of numbers (numList)
  2. Create a empty list to store even numbers as (evenList.)
  3. Iterate the list(numList) and fetch each number
  4. Check current number is evenly divisible by 2
  5. Add current number in the resultant list(evenList)
  6. Repeat the step from c to e , untill reach last number
  7. Return the resultant list(evenList)