Set 1 Scenario Questions

1. 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.

* Get input from users as number as age.
* If the age is greater than or equal to 18 then print as eligible.
* Else print as not eligible.

2. 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.

* Create a variable, naming largestNumber for storing the largest number having the initial value as 0.
* Create an iteration using a for loop for iterating the number list.
* If the current number is greater than the value in largestNumber, then assign the current number to the largerstNumber.

3. 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.

* Get input salary from user
* Check if the salary is greater than $50,000, then calculate 10% of salary and store it in a variable naming as bonus.
* If bonus is not empty then print the bonus

4. 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.

* Get input number
* If the remainder of the number is 0 then it is even, else it is odd

5. 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.

* Get an input string
* Find the length of the string
* Using for loop and range starting from the index of length - 1 and till -1, will be having a step decrement of -1, meanwhile add the elements to a new string element having the name as reverseString
* Atlast print the reverse string

6. 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.

* Get input mark
* Check if the mark is greater than 40, then print as pass
* Else print as fail

7. 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.

* Get the total order cost as input
* Check if the order exceeds $100 then calculate the discount value of 20% from the input order and deduct it from the input order and print the final amount

8. 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.

* Get the balance and withdrawal details
* If the withdrawal amount is less than balance then print insufficient balance, process the withdrawal and subtract it from the balance and update the balance.
* Else print insufficient balance.

9. 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.

* Get the input as year
* If the year is evenly divisible by 4, it is a leap year,-.
* Else If the year is evenly divisible by 100 and not divisible by 400, it is a leap year
* If the year is evenly divisible by 400, it is a leap year.
* Otherwise, not a leap year.

10. 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.

* Create another list which should have only the even numbers.
* Iterate the given list.
* If the current number is even then put it in the even number list.
* After the end of iteration, put the logic inside a function and add a return returning the even list.