#### **Scenario based Set-2**

**Scenario 1:** Write logic to determine whether the amount is positive, negative, or zero.

### Logic:

- 1. Get an input as amount.
- 2. Check whether the input is positive, negative, or zero using if condition.
- 3. If the input is Positive, print as Positive value.
- 4. elif the input is Negative, print as Negative value.
- 5. if it is Zero, print as You have entered a zero value.

**Scenario 2:** Write logic to compute the sum of the digits of a given number.

### Logic:

- 1. Get the input and initialize a variable (sum) to zero.
- 2. Convert the input as string number.
- 3. Use for loop for iteration.
- 4. In each iteration, add the number to sum by converting to integer.
- 5. Repeat the iteration till the last value
- 6. Final sum value is printed.

**Scenario 3:** Write logic to take a number and return its reverse.

### Logic:

- 1. Get an input number.
- 2. Convert the number into string.
- 3. Do the number reversal.
- 4. Print the reverse number.

**Scenario 4:** Write logic to check if a given number is prime.

### **Logic:**

- 1. Get a input number.
- 2. Declare a function with an argument.
- 3. Using If condition to check, if the number is equal to 1, then it is not prime.
- 4. If it is equal to 2, then it is prime.
- 5. Make a for loop and do iteration for i value for a range of 2 to square root of that number +1.
- 6. Check the condition if the number / i equals to zero, return and print not prime.
- 7. Return and print Prime outside the loop if the condition false.

**Scenario 5:** Write logic to find the factorial of a given number using recursion.

### Logic:

- 1. Get an input number.
- 2. Check the number < 0, print it as negative value
- 3. Initialize fact variable as zero.
- 4. If the number is 0, return fact.
- 5. Using for loop for i in range of 1 to n+1, multiply the i with fact value
- 6. Repeat the iteration till n+1 and return the fact value

Scenario 6: Write logic to check whether a given number is an Armstrong number.

# Logic:

- 1. Get an input number
- 2. Convert the number into string and find the length in digit.
- 3. Using for loop with a range of i in digit, do the power of each i value.
- 4. Initialize the sum = 0 and add the each i value to the power of digit.
- 5. Check the sum value with the input and if it is equal print Armstrong number else not an Armstrong number.

**Scenario 7:** Write logic to swap first and last character on a given string.

### **Logic:**

- 1. Get an input string.
- 2. Check the length of the string is less than 2 then, print as it is.
- 3. Do the swap of first and last digit
- 4. Print the swap string

**Scenario 8:** Write logic to convert a given decimal number into its binary equivalent.

### <u>Logic</u>:

- 1. Get an input number.
- 2. Assign a empty string for binary value.
- 3. Divide the input by 2 and add the remainder to the empty binary string.
- 4. Repeat the iteration using while the input >0 and complete the iteration till that number = 0
- 5. Do the reversal of that binary value and Print it.

**Scenario 9:** Write logic to find the longest word in a sentence.

### Logic:

- 1. Get an input string as a sentence
- 2. Split the sentence into words.
- 3. Initialize an empty string for long word.
- 4. Using for loop iterate each word by comparing with long word.
- 5. Find the long word and print it.

Scenario 10: Write logic to check whether two given strings are anagrams.

# Logic:

- 1. Get the two input strings.
- 2. Sort the two strings and convert it into upper case.
- 3. Compare the two strings. If both the strings are equal, Print as "Anagram" else "No Anagram"