ASSIGNMENT-1

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1.Write a python program for the following: – Input the string“Python” as a list of characters from console, delete at least 2 characters, reverse the resultant string and print it.

Sample input: •python

Sample output: •ntyp

Take two numbers from user and perform at least 4 arithmetic operations on them.

 Task 1: Manipulating Strings

input\_string = input("Enter a string: ")  # Input the string

char\_list = list(input\_string)  # Convert the string to a list of characters

if len(char\_list) >= 2:  # Ensure there are at least 2 characters to delete

    del char\_list[-2:]  # Delete the last two characters

    char\_list.reverse()  # Reverse the list

    result = ''.join(char\_list)  # Convert the list back to a string

    print("Modified and reversed string:", result)

else:

    print("String must have at least 2 characters to perform the operation."

 Task 2: Arithmetic Operations

num1 = float(input("Enter the first number: "))

num2 = float(input("Enter the second number: "))

# Perform arithmetic operations

addition = num1 + num2

subtraction = num1 - num2

multiplication = num1 \* num2

# Check if num2 is not 0 to avoid division by zero

if num2 != 0:

    division = num1 / num2

else:

    division = "Undefined (division by zero)"

print("Arithmetic Operations:")

print("Addition:", addition)

print("Subtraction:", subtraction)

print("Multiplication:", multiplication)

print("Division:", division)

1. Write a program that accepts a sentence and replace each occurrence of ‘python’ with ‘pythons’.

•Sample input: •I love playing with python

•Sample output: •I love playing with pythons

def replace\_python(sentence):

    replaced\_sentence = sentence.replace("python", "pythons")

    return replaced\_sentence

input\_sentence = input("Enter a sentence: ")

modified\_sentence = replace\_python(input\_sentence)

print("Modified sentence:", modified\_sentence)

3.Use the if statement conditions to write a program to print the letter grade based on an input class score. Use the grading scheme we are using in this class.

def calculate\_class\_grade(score):

    if score >= 90:

        return "A"

    elif score >= 80:

        return "B"

    elif score >= 70:

        return "C"

    elif score >= 60:

        return "D"

    else:

        return "F"

# Get input class score from the user

try:

    class\_score = float(input("Enter the class score: "))

    if 0 <= class\_score <= 100:

        letter\_grade = calculate\_class\_grade(class\_score)

        print("The letter grade for the score {:.2f} is: {}".format(class\_score, letter\_grade))

    else:

        print("Invalid score. Please enter a score between 0 and 100.")

except ValueError:

    print("Invalid input. Please enter a valid number.")