1. **Write a Python Program to Add Two Matrices?**

# define the matrices

matrix1 = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]

matrix2 = [[9, 8, 7], [6, 5, 4], [3, 2, 1]]

# create a new matrix to store the result

result\_matrix = [[0, 0, 0], [0, 0, 0], [0, 0, 0]]

# iterate over the rows of the matrices and add the corresponding elements

for i in range(len(matrix1)):

for j in range(len(matrix1[0])):

result\_matrix[i][j] = matrix1[i][j] + matrix2[i][j]

# print the result

print("Matrix 1:")

for row in matrix1:

print(row)

print("Matrix 2:")

for row in matrix2:

print(row)

print("Result:")

for row in result\_matrix:

print(row)

1. **Write a Python Program to Multiply Two Matrices?**

# define the matrices

matrix1 = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]

matrix2 = [[9, 8, 7], [6, 5, 4], [3, 2, 1]]

# create a new matrix to store the result

result\_matrix = [[0, 0, 0], [0, 0, 0], [0, 0, 0]]

# iterate over the rows and columns of the matrices and multiply the corresponding elements

for i in range(len(matrix1)):

for j in range(len(matrix2[0])):

for k in range(len(matrix2)):

result\_matrix[i][j] += matrix1[i][k] \* matrix2[k][j]

# print the result

print("Matrix 1:")

for row in matrix1:

print(row)

print("Matrix 2:")

for row in matrix2:

print(row)

print("Result:")

for row in result\_matrix:

print(row)

1. **Write a Python Program to Transpose a Matrix?**

# define the matrix

matrix = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]

# create a new matrix to store the result

result\_matrix = [[0, 0, 0], [0, 0, 0], [0, 0, 0]]

# iterate over the rows and columns of the matrix and transpose the elements

for i in range(len(matrix)):

for j in range(len(matrix[0])):

result\_matrix[j][i] = matrix[i][j]

# print the original matrix and the result

print("Original Matrix:")

for row in matrix:

print(row)

print("Transposed Matrix:")

for row in result\_matrix:

print(row)

1. **Write a Python Program to Sort Words in Alphabetic Order?**

# define the input string

input\_str = "hello world this is a test"

# split the input string into words

words = input\_str.split()

# sort the words in alphabetical order

sorted\_words = sorted(words)

# print the sorted words

print("Sorted words:")

for word in sorted\_words:

print(word)

1. **Write a Python Program to Remove Punctuation From a String?**

import string

# define the input string

input\_str = "Hello, world! This is a test."

# define a string containing all punctuation characters

punctuation = string.punctuation

# create a new string without punctuation

no\_punctuation = input\_str.translate(str.maketrans("", "", punctuation))

# print the original string and the string without punctuation

print("Original string:", input\_str)

print("String without punctuation:", no\_punctuation)