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Practical No: 13

1) Python program to create two matrices and perform addition, subtraction, multiplication, and division operations:

CODE:

import numpy as np

matrix1 = np.array([[1, 2, 3],

[4, 5, 6],

[7, 8, 9]])

matrix2 = np.array([[9, 8, 7],

[6, 5, 4],

[3, 2, 1]])

addition\_result = np.add(matrix1, matrix2)

print("Matrix Addition:")

print(addition\_result)

subtraction\_result = np.subtract(matrix1, matrix2)

print("\nMatrix Subtraction:")

print(subtraction\_result)

multiplication\_result = np.multiply(matrix1, matrix2)

print("\nMatrix Multiplication:")

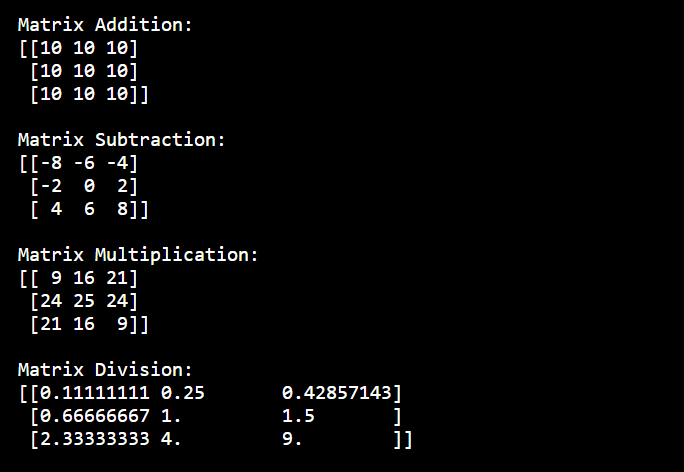
print(multiplication\_result)

division\_result = np.divide(matrix1, matrix2)

print("\nMatrix Division:")

print(division\_result)

OUTPUT:

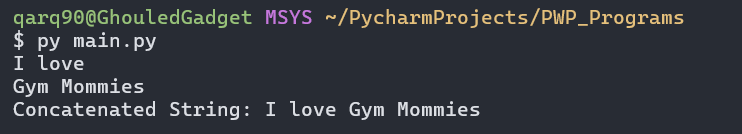
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2) Python program to concatenate two strings:

**CODE:**

def concatenate\_strings(str1, str2):  
 return str1 + str2  
  
string1 = "I love "  
string2 = "Gym Mommies"  
  
concatenated\_string = concatenate\_strings(string1, string2)  
  
print(string1)  
print(string2)  
print("Concatenated String:", concatenated\_string)

**OUTPUT:**

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3) NumPy program to generate six random integers between 10 and 30.

**CODE:**

import numpy as np

random\_integers = np.random.randint(10, 31, size=6)

print("Six Random Ints between 10 and 30:", random\_integers)

**OUTPUT:**

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EXTRA QUESTIONS

4) Program demonstrating the use of all string functions.

**Chars.py:**  
def display\_student\_info(name, roll\_number):  
 print("Student Name:", name)  
 print("Roll Number:", roll\_number)

**Main.py:**

import my\_package.chars as C  
  
C.display\_student\_info("Spectre",69)

**OUTPUT:**

