**Program no : 1**

Aim:Perform all matrics operation using python using numpy

**Program:**

import numpy

x = numpy.array([[8, 9], [4, 2]])

y = numpy.array([[5, 5], [3, 11]])

print ("Addition of two matrices: ")

print (numpy.add(x,y))

print ("Subtraction of two matrices : ")

print (numpy.subtract(x,y))

print ("Matrix Division : ")

print (numpy.divide(x,y))

print ("Multiplication of two matrices: ")

print (numpy.multiply(x,y))

print ("The product of two matrices : ")

print (numpy.dot(x,y))

print ("square root is : ")

print (numpy.sqrt(x))

print ("The summation of elements : ")

print (numpy.sum(y))

print ("The column wise summation : ")

print (numpy.sum(y,axis=0))

print ("The row wise summation: ")

print (numpy.sum(y,axis=1))

print ("Matrix transposition : ")

print (x.T)

**OUTPUT**



