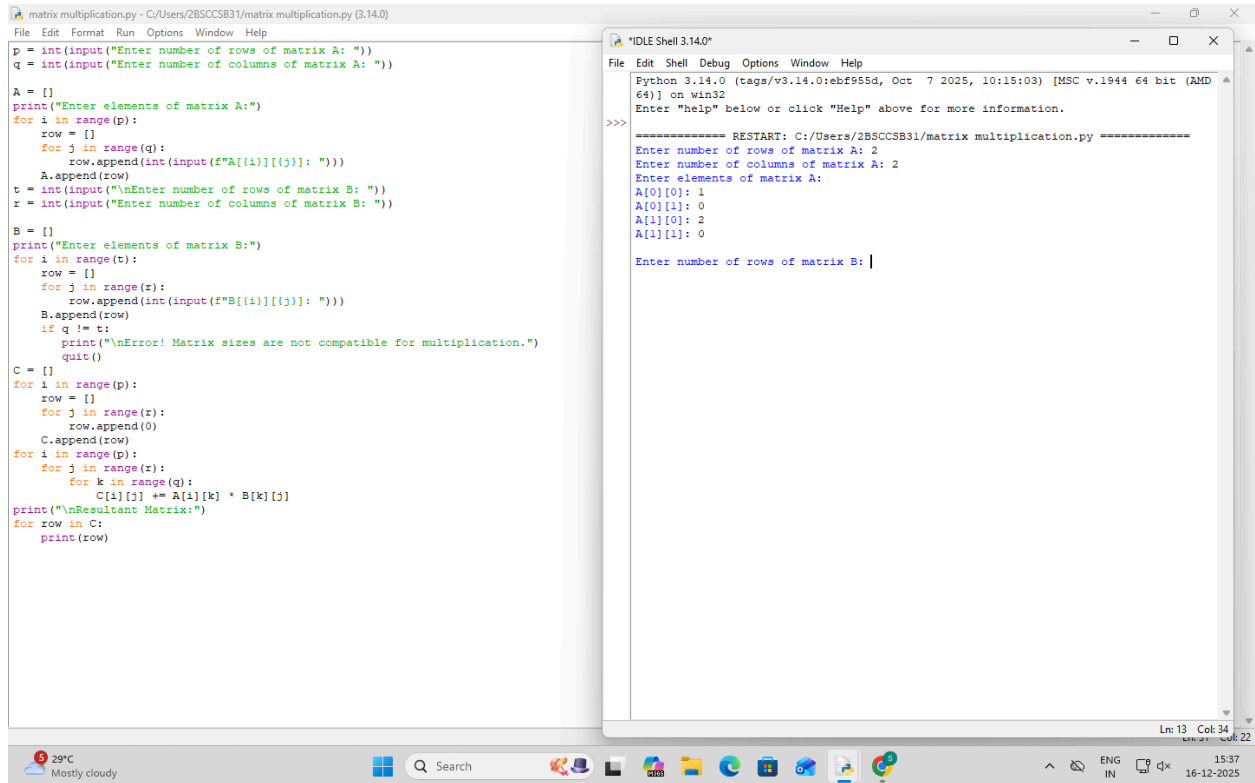


MATRIX MULTIPLICATION

Program with output:



The image shows a screenshot of a Windows desktop with two windows open. The left window is a Python IDE titled "matrix multiplication.py - C:/Users/2BSCCSB31/matrix multiplication.py [3.14.0]". It contains the following Python code:

```
p = int(input("Enter number of rows of matrix A: "))
q = int(input("Enter number of columns of matrix A: "))

A = []
print("Enter elements of matrix A:")
for i in range(p):
    row = []
    for j in range(q):
        row.append(int(input(f"A[{i}][{j}]: ")))
    A.append(row)

t = int(input("\nEnter number of rows of matrix B: "))
z = int(input("Enter number of columns of matrix B: "))

B = []
print("Enter elements of matrix B:")
for i in range(t):
    row = []
    for j in range(z):
        row.append(int(input(f"B[{i}][{j}]: ")))
    B.append(row)
if q != t:
    print("\nError! Matrix sizes are not compatible for multiplication.")
    quit()

C = []
for i in range(p):
    row = []
    for j in range(z):
        for k in range(q):
            C[i][j] += A[i][k] * B[k][j]
print("\nResultant Matrix:")
for row in C:
    print(row)
```

The right window is a terminal titled "IDLE Shell 3.14.0". It shows the output of the program after execution:

```
Python 3.14.0 (tags/v3.14.0:ebf955d, Oct 7 2025, 10:15:03) [MSC v.1944 64 bit (AMD 64)] on win32
Enter "help" below or click "Help" above for more information.

>>>
===== RESTART: C:/Users/2BSCCSB31/matrix multiplication.py =====
Enter number of rows of matrix A: 2
Enter number of columns of matrix A: 2
Enter elements of matrix A:
A[0][0]: 1
A[0][1]: 0
A[1][0]: 2
A[1][1]: 0

Enter number of rows of matrix B: |
```

The taskbar at the bottom shows the system clock as 15:37 on 16-12-2025, and the weather as 29°C Mostly cloudy.