

Matrix to get input from user

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Matrix.py - C:/Users/2BSCCSB08/Matrix.py (3.14.0)
File Edit Format Run Options Window Help
def input_matrix(rows, cols, matrix_name):
    matrix = []
    print("Enter the elements for matrix ({matrix_name}) ({rows}x{cols}):")
    for i in range(rows):
        row = []
        for j in range(cols):
            value = int(input(f"Enter element [{i+1}][{j+1}]: "))
            row.append(value)
        matrix.append(row)
    return matrix

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

t = int(input("Enter the number of rows for matrix B: "))
r = int(input("Enter the number of columns for matrix B: "))

if q != r:
    print("Error! Matrix sizes are not compatible for multiplication.")
    quit()

A = input_matrix(p, q, "A")
B = input_matrix(t, r, "B")

C = []
for row in range(p):
    curr_row = []
    for col in range(r):
        curr_val = 0
        for k in range(q):
            curr_val += A[row][k] * B[k][col]
        curr_row.append(curr_val)
    C.append(curr_row)

print(C)

IDLE Shell 3.14.0
File Edit Shell Debug Options Window Help
Python 3.14.0 (tags/v3.14.0:ebf955d, Oct 7 2025, 10:15:03) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> ===== RESTART: C:/Users/2BSCCSB08/Matrix.py =====
Enter the number of rows for matrix A: 3
Enter the number of columns for matrix A: 4
Enter the number of rows for matrix B: 3
Enter the number of columns for matrix B: 2
Enter the elements for matrix ({matrix_name}) ({rows}x{cols}):
Enter element [1][1]: 1
Enter element [1][2]: 2
Enter element [1][3]: 4
Enter element [2][1]: 5
Enter element [2][2]: 6
Enter element [2][3]: 7
Enter the elements for matrix ({matrix_name}) ({rows}x{cols}):
Enter element [1][1]: 3
Enter element [1][2]: 8
Enter element [2][1]: 9
Enter element [2][2]: 7
Enter element [3][1]: 6
Enter element [3][2]: 2
[[45, 30], [111, 96]]
```