Example 2

```
Enter your choice: 4

Transpose of A:
 [[1. 4.]
 [2. 5.]
 [3. 6.]]
Transpose of B:
 [[ 7.  9. 11.]
 [ 8. 10. 12.]]
Enter your choice: 5

Determinant of A (if square):
A is not square.

Determinant of B (if square):
B is not square.
Enter your choice: 0
Invalid choice.
Enter your choice: 6
Rank of A = 2
Rank of B = 2
Enter your choice: 7
Exiting...
```

```
Choose an operation:
1. Add (A + B)
2. Subtract (A - B)
3. Multiply (A x B)
4. Transpose (A^T, B^T)
5. Determinant (A or B)
6. Rank (A, B)
7. Exit
Enter your choice: 1
Matrices must have the same shape for addition.
Enter your choice: 2
Matrices must have the same shape for subtraction.
Enter your choice: 3

Result:
 [[ 58.  64.]
 [139. 154.]]
Enter your choice: 4

Transpose of A:
 [[1. 4.]
 [2. 5.]
 [3. 6.]]
Transpose of B:
 [[ 7.  9. 11.]
 [ 8. 10. 12.]]
```

```
(base) C:\Users\ankit\Desktop>python Matrix_operation_tool.py

=== MATRIX OPERATIONS TOOL ===

Matrix A
Enter number of rows: 2
Enter number of columns : 3
Enter the matrix row by row(seperated by space:)
Row 1: 1 2 3
Row 2: 4 5 6

Matrix B
Enter number of rows: 3
Enter number of columns : 2
Enter the matrix row by row(seperated by space:)
Row 1: 7 8
Row 2: 9 10
Row 3: 11 12

Matrix A:
[[1. 2. 3.]
 [4. 5. 6.]]

Matrix B:
[[ 7.  8.]
 [ 9. 10.]
 [11. 12.]]
```