In [1]:
```
import numpy as np

# Get user input for tensor dimensions
rows = int(input("Enter number of rows: "))
cols = int(input("Enter number of columns: "))

# Create a tensor with random values
tensor = np.random.rand(rows, cols)
for i in range(rows):
    for j in range(cols):
        tensor[i][j] = float(input(f"Enter value for [{i}][{j}]: "))

# Print the tensor
print("Original tensor:\n", tensor)

# Get user input for split axis
split_axis = int(input("Enter the axis to split along (0 for rows, 1 for colum

# Split the tensor along the specified axis
tensor_split = np.split(tensor, 2, axis=split_axis)

# Print the split tensors
print("Split tensors:\n", tensor_split)

# Merge the split tensors along the same axis
tensor_merged = np.concatenate(tensor_split, axis=split_axis)

# Print the merged tensor
print("Merged tensor:\n", tensor_merged)
```

```
Enter number of rows: 2
Enter number of columns: 2
Enter value for [0][0]: 1
Enter value for [0][1]: 2
Enter value for [1][0]: 3
Enter value for [1][1]: 4
Original tensor:
 [[1. 2.]
 [3. 4.]]
Enter the axis to split along (0 for rows, 1 for columns): 1
Split tensors:
 [array([[1.],
       [3.]]), array([[2.],
       [4.]])]
Merged tensor:
 [[1. 2.]
 [3. 4.]]
```