1. Slicing Arrays

Which of the following would extract all the rows of the first 3 columns in a 2D array?

array_name[: , :2]

array_name[(: , :2)]

array_name[: , :3]

array_name[(: , :3)]

Answer:-
array_name[: , :3]

Coding

Border Rows and Columns

Description -Extract all the border rows and columns from a 2-D array.

In [7]:
```
import ast
input_str = input()
input_list = ast.literal_eval(input_str)

import numpy as np

# Convert the input list to a NumPy array
array_2d =np.array(input_list)

# Extract the first column, first row, last column and last row respectively using
# appropriate indexing
col_first = array_2d[:,0]
row_first = array_2d[0]
col_last = array_2d[:,-1]
row_last = array_2d[-1]
```

```
print(col_first)
print(row_first)
print(col_last)
print(row_last)
```

```
[[11,12,13,14],[21,22,23,24],[31,32,33,34]]
[11 21 31]
[11 12 13 14]
[14 24 34]
[31 32 33 34]
```
