NumPy Array Indexing

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1 Accessing Elements using Index

[3]:
```
import numpy as np
a=np.array([1,3,5,7,9,11])
print(a[1]);print(a[4])
print()

#Negative Indexing

print(a[-1]);print(a[-4])
```

```
3
9

11
5
```

2 Modify Elements using Index

[14]:
```
a=np.array([1,3,5,7,9,11])
a[4]=29
print(a)

#Negative Indexing

a[-3]=33
print(a)
```

```
[ 1  3  5  7 29 11]
[ 1  3  5 33 29 11]
```

3 2D Array

[19]:
```
a=np.array([[1,3,5,7],[9,11,13,15],[2,4,6,8]])
b=a[1,3]
print(b)
```

```
15
```

[23]:
```
a=np.
 ↪array([[12,14,16,18,20],[22,24,26,28,30],[32,33,35,38,40],[101,102,103,104,105],[2,8,19,24,34
print(a[3,3])
print(a[1,3])
print(a[2,3])
print(a[0,2])
print(a[4,2])
print(a[1,0])
```

```
104
28
38
16
19
22
```

4 Accessing row or column using Indexing

[9]:
```
a=np.array([[1,3,5],[7,9,2],[4,6,8]])
print(a[2,:])
print(a[:,2])
```

```
[4 6 8]
[5 2 8]
```

[18]:
```
a=np.array([[[1,2,3,4],[5,6,7,8],[9,10,11,12]],
           [[13,14,15,16],[17,18,19,20],[21,22,23,24]]])
print(a)
print(a[1,2,1])
```

```
[[[ 1  2  3  4]
  [ 5  6  7  8]
  [ 9 10 11 12]]

 [[13 14 15 16]
  [17 18 19 20]
  [21 22 23 24]]]
22
```