

The screenshot shows a GitHub repository page for 'Python-for-machine-learning'. The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. Below the navigation is a file list with 'main' selected. A search bar allows navigating to specific files. A recent commit from user 'Kiru0310' is shown, adding files via upload. At the bottom, there are buttons for Preview, Code, Blame, Raw, and download.

```
In [7]:  
import numpy as np  
arr=np.array([1,2,3,4,5,4,4])  
print("original array:",arr)  
x=np.where(arr==4)  
print("\n indexes where the values is 4:\n",x)
```

original array: [1 2 3 4 5 4 4]

indexes where the values is 4:
(array([3, 5, 6]),)

```
In [8]:  
arr=np.array([1,2,3,4,5,6,7,8])  
x=np.where(arr%2==0)  
print("original array:",arr)  
print("\n indexes where the values are even:",x)
```

original array: [1 2 3 4 5 6 7 8]

indexes where the values are even: (array([1, 3, 5, 7]),)

```
In [9]:  
x=np.searchsorted(arr,3,side='left')  
print("\nindexes where the value 3 should be inserted,starting from the right:",x)
```

indexes where the value 3 should be inserted,starting from the right: 2

```
In [10]:  
arr=np.array([3,2,0,1])  
print("\noriginal array:",arr)  
print("\nsorted array:",np.sort(arr))  
arr=np.array([[3,2,4],[5,0,1]])  
print("\noriginal array:",arr)  
print("\nsorted array:",np.sort(arr))
```

original array: [3 2 0 1]

sorted array: [0 1 2 3]

original array: [[3 2 4]
[5 0 1]]

sorted array: [[2 3 4]
[0 1 5]]

```
In [11]:  
arr=np.array([41,42,43,44])  
filter_arr=arr>42  
newarr=arr[filter_arr]  
print("\noriginal array:",arr)  
print("\nfilter array:condition->42:",filter_arr)  
print("\nnew array:",newarr)
```

original array: [41 42 43 44]

filter array:condition->42: [False False True True]

new array: [43 44]

```
In [ ]:
```