

Selection Sort algorithm is an in-place comparison-based algorithm. The algorithm divides the array into two segments:

The sorted part at the left end.

The remaining unsorted part at the right end.

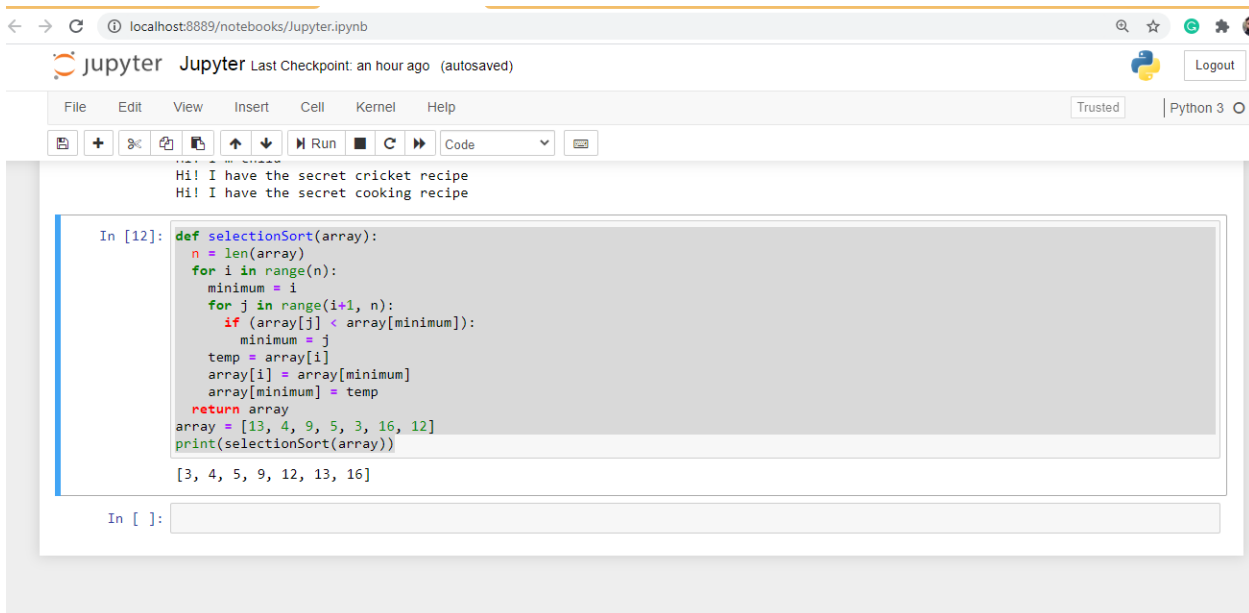
The algorithm involves finding the minimum or maximum element in the unsorted portion of the array and then placing it in the correct position of the array.

Lets See An Example:-----

```
def selectionSort(array):
    n = len(array)
    for i in range(n):
        minimum = i
        for j in range(i+1, n):
            if (array[j] < array[minimum]):
                minimum = j
        temp = array[i]
        array[i] = array[minimum]
        array[minimum] = temp
    return array

array = [13, 4, 9, 5, 3, 16, 12]
print(selectionSort(array))
```

Jupyter Notepad ScreenShot:



```
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File Edit View Insert Cell Kernel Help Trusted Python 3
In [12]: def selectionSort(array):
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for i in range(n):
    minimum = i
    for j in range(i+1, n):
        if (array[j] < array[minimum]):
            minimum = j
    temp = array[i]
    array[i] = array[minimum]
    array[minimum] = temp
return array
array = [13, 4, 9, 5, 3, 16, 12]
print(selectionSort(array))

[3, 4, 5, 9, 12, 13, 16]
```