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Latihan:


```python
def swap(A,p,q):
    tmp = A[p]
    A[p] = A[q]
    A[q] = tmp

def cariPosisiYangTerkecil(A,dariSini,sampaiSini):
    posisiYangTerkecil = dariSini
    for i in range(dariSini+1,sampaiSini):
        if A[i] < A[posisiYangTerkecil]:
            posisiYangTerkecil = i
        return posisiYangTerkecil

def bubbleSort(A):
    n = len(A)
    for i in range(n-1):
        for j in range(n-i-1):
            if A[j] > A[j+1] :
                swap(A,j,j+1)

def selectionSort(A) :
    n = len(A)
    for i in range(n-1):
        indexKecil = cariPosisiYangTerkecil(A,i,n)
        if indexKecil != 1 :
            swap(A,i,indexKecil)

def insertionSort(A) :
    n = len(A)
    for i in range(1,n) :
        nilai = A[i]
        pos = i
        while pos > 0 and nilai < A[pos-1]:
            A[pos] = A[pos-1]
            pos = pos-1
        A[pos] = nilai
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (A
MD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:/MRRS/Latihan Python/Kuliah AlgoStruk/Modul 5/latihan.py =====
>>> K = [50,20,70,10]
>>> swap(K,1,3)
>>> K
[50, 10, 70, 20]
>>> A = [18,13,44,25,66,107,78,89]
>>> j = cariPosisiYangTerkecil(A,2,len(A))
>>> j
3
>>> L = [10,51,2,18,4,31,13,5,23,64,29]
>>> bubbleSort(L)
>>> L
[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>> M = [10,51,2,18,4,31,13,5,23,64,29]
>>> selectionSort(M)
>>> M
[10, 2, 18, 4, 31, 13, 5, 23, 51, 29, 64]
>>> N = [10,51,2,18,4,31,13,5,23,64,29]
>>> insertionSort(N)
>>> N
[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
```