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PRAKTIKUM ALGORITMA STRUKTUR DATA LATIHAN MODUL 5

Python 3.8.1 Shell

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```
Python 3.8.1 (tags/v3.8.1:1b293b6, Dec 18 20
tel)] on win32
Type "help", "copyright", "credits" or "lice
>>>
= RESTART: C:/Users/kevin/AppData/Local/Prog
>>> 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
>>> a=[50, 20, 70, 10, 30, 60]
>>> bubbleSort(a)
>>> a
[10, 20, 30, 50, 60, 70]
>>> b=[50, 20, 70, 10, 30, 60]
>>> selectionSort(b)
>>> b
[10, 20, 30, 50, 60, 70]
>>> x=[50, 20, 70, 10, 30, 60]
>>> insertionSort(x)
>>> x
[10, 20, 30, 50, 60, 70]
>>>
```

latihan.py - C:/Users/kevin/AppData/Local/Programs/Python/Python38-32/latihan.

File Edit Format Run Options Window Help

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

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

#Latihan 5.1
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)

#Latihan 5.2
def selectionSort(a):
    n=len(a)
    for i in range(n-1):
        indexKecil=cariPosisiYangTerkecil(a,i,n)
        if indexKecil != i:
            swap(a,i,indexKecil)

#Latihan 5.3
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
```