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Kelas : B

MODUL 5

Nomor 1

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1.py - C:/Users/ACER/Documents/COOLYAH/SEMESTER 4/PRAKTIKUM ASD/MODUL - 05/1.py (3.4.3)
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class Mahasiswa(object):
    """Class Mahasiswa yang dibangun dari class Manusia."""
    def __init__(self, nama, NIM, kota, us):
        """Metode inisiasi ini menutupi metode inisiasi di class Manusia"""
        self.nama = nama
        self.NIM = NIM
        self.kotaTinggal = kota
        self.uangSaku = us

def BubbleSort(val):
    for passnum in range(len(val)-1,0,-1):
        for i in range(passnum):
            if val[i]>val[i+1]:
                temp = val[i]
                val[i] = val[i+1]
                val[i+1] = temp

c0 = Mahasiswa('Rina',10,'Boyolali',240000)
c1 = Mahasiswa('Dina',51,'Surabaya',230000)
c2 = Mahasiswa('Gilmore',2,'Whirlpool',250000)
c3 = Mahasiswa('Sanchez',18,'Andromeda',235000)
c4 = Mahasiswa('Morphine',4,'Semarang',240000)
c5 = Mahasiswa('Mabila',31,'Salatiga',250000)
c6 = Mahasiswa('Anna',13,'Klaten',245000)
c7 = Mahasiswa('Elsa',5,'Wonogiri',245000)
c8 = Mahasiswa('Olaf',23,'Klaten',245000)
c9 = Mahasiswa('Luffy',64,'Pekalongan',270000)
c10 = Mahasiswa('Conan',29,'Yogyakarta',230000)

angka = [c0.NIM,c1.NIM,c2.NIM,c3.NIM,c4.NIM,c5.NIM,c6.NIM,c7.NIM,c8.NIM,c9.NIM,c10.NIM]
BubbleSort(angka)
print(angka)
```

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Python 3.4.3 Shell
File Edit Shell Debug Options Window Help

Python 3.4.3 (v3.4.3:9b73f1c3e601, Feb 24 2015, 22:43:06) [MSC v.1600 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> ===== RESTART =====
>>>
>>> [2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>>
```

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2.py - C:/Users/ACER/Documents/COOLYAH/SEMESTER 4/PRAKTIKUM ASD/MODUL - 05/2.py (3.4.3)
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def BubbleSort(val):
    for passnum in range(len(val)-1,0,-1):
        for i in range(passnum):
            if val[i]>val[i+1]:
                temp = val[i]
                val[i] = val[i+1]
                val[i+1] = temp

angka = [23,7,32,99,4,15,11,20]
BubbleSort(angka)
a = angka
angka1 = [23,7,32,99,4,15,11,20]
BubbleSort(angka1)
b = angka1
angka2 = (a+b)
BubbleSort(angka2)
c = angka2
print(c)
```

Ln: 18 / Col: 0

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Python 3.4.3 Shell
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Python 3.4.3 (v3.4.3:9b73f1c3e601, Feb 24 2015, 22:43:06) [MSC v.1600 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> ===== RESTART =====
>>>
[4, 4, 7, 7, 11, 11, 15, 15, 20, 20, 23, 23, 32, 32, 99, 99]
>>> |
```

Ln: 6 / Col: 4

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3.py - C:/Users/ACER/Documents/COOLYAH/SEMESTER 4/PRAKTIKUM ASD/MODUL - 05/3.py (3.4.3)
File Edit Format Run Options Window Help

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

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

k = []
for i in range(1,6001):
    k.append(i)
kocok(k)
u_bub = k[:]
u_sel = k[:]
u_ins = k[:]

aw = detak();bubbleSort(u_bub);ak = detak();print('bubble: %g detik' %(ak-aw));
aw = detak();selectionSort(u_sel);ak = detak();print('selection: %g detik' %(ak-aw));
aw = detak();insertionSort(u_ins);ak = detak();print('insertion: %g detik' %(ak-aw));

Ln: 25 / Col: 0
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Python 3.4.3 Shell
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Python 3.4.3 (v3.4.3:9b73f1c3e601, Feb 24 2015, 22:43:06) [MSC v.1600 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> ===== RESTART =====
>>>
bubble: 10.1963 detik
selection: 4.097 detik
insertion: 4.85894 detik
>>>
```