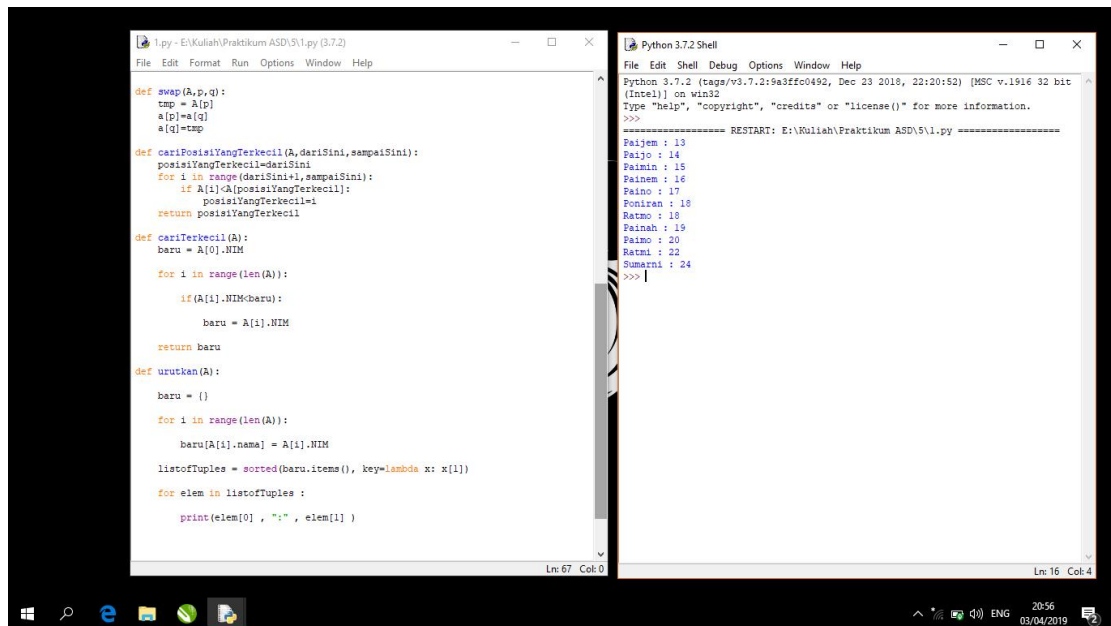


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1.



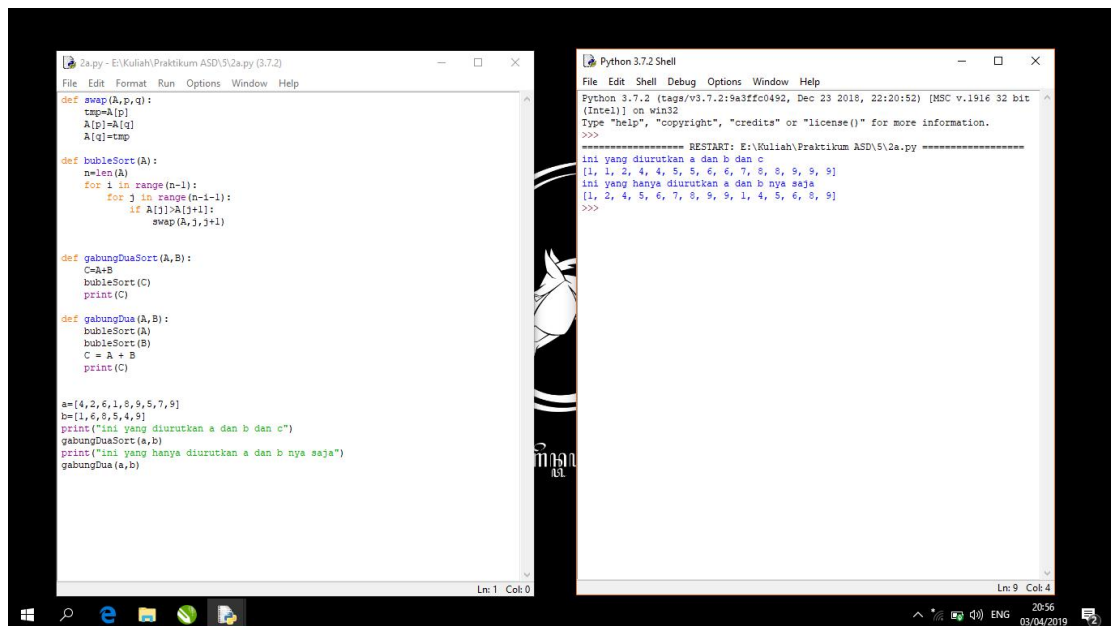
The screenshot shows a Python IDE with two windows. The left window, titled '1.py - E:\Kuliah\Praktikum ASD\5\1.py (3.7.2)', contains the following code:

```
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 cariTerkecil(A):  
    baru = A[0].NIM  
    for i in range(len(A)):  
        if A[i].NIM<baru:  
            baru = A[i].NIM  
    return baru  
  
def urutkan(A):  
    baru = []  
    for i in range(len(A)):  
        baru[A[i].name] = A[i].NIM  
    listofTuples = sorted(baru.items(), key=lambda x: x[1])  
    for elem in listofTuples :  
        print(elem[0] , ":", elem[1] )
```

The right window, titled 'Python 3.7.2 Shell', shows the output of the program:

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit  
(Intel)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: E:\Kuliah\Praktikum ASD\5\1.py =====  
Paijem : 13  
Paijo : 14  
Paimin : 15  
Paimem : 16  
Paino : 17  
Poniren : 18  
Ratmo : 18  
Paimah : 19  
Paimo : 20  
Ratmi : 22  
Sumarni : 24  
>>>
```

2.



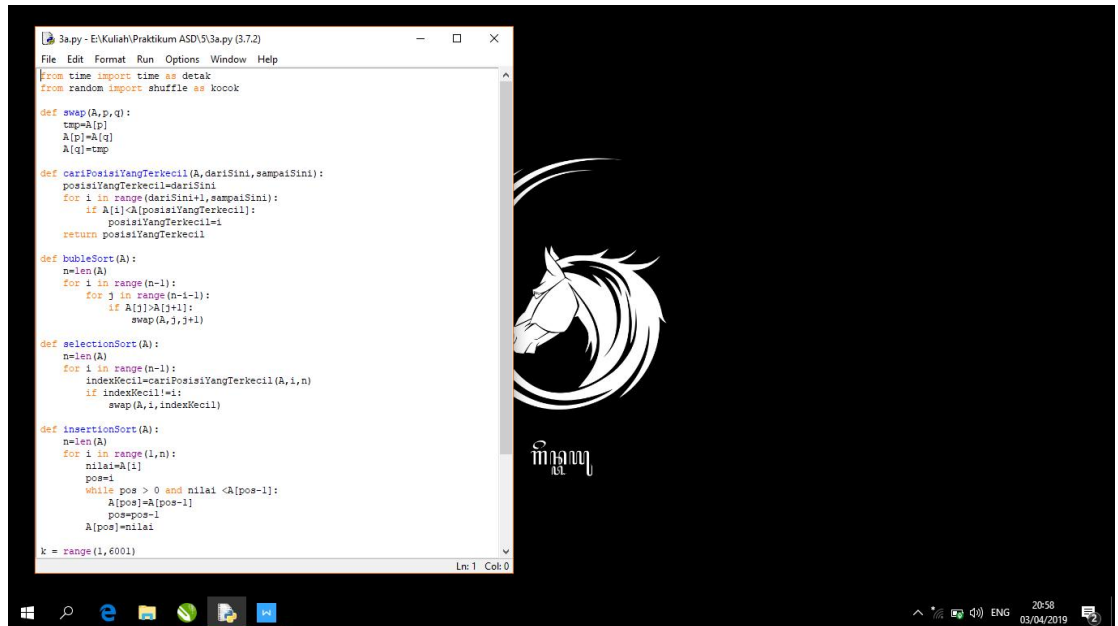
The screenshot shows a Python IDE with two windows. The left window, titled '2a.py - E:\Kuliah\Praktikum ASD\5\2a.py (3.7.2)', contains the following code:

```
def swap(A,p,q):  
    tmp=A[p]  
    A[p]=A[q]  
    A[q]=tmp  
  
def bubbleSort(A):  
    n=len(A)  
    for i in range(n-1):  
        for j in range(n-1-i):  
            if A[j]>A[j+1]:  
                swap(A,j,j+1)  
  
def gabungDuaSort(A,B):  
    C=A+B  
    bubbleSort(C)  
    print(C)  
  
def gabungDua(A,B):  
    bubbleSort(A)  
    bubbleSort(B)  
    C = A + B  
    print(C)  
  
a=[4,2,6,1,8,9,5,7,9]  
b=[1,6,8,5,4,9]  
print("ini yang diurutkan a dan b dan c")  
gabungDuaSort(a,b)  
print("ini yang hanya diurutkan a dan b nya saja")  
gabungDua(a,b)
```

The right window, titled 'Python 3.7.2 Shell', shows the output of the program:

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit  
(Intel)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: E:\Kuliah\Praktikum ASD\5\2a.py =====  
ini yang diurutkan a dan b dan c  
[1, 1, 2, 4, 4, 5, 5, 6, 6, 7, 8, 8, 9, 9, 9]  
ini yang hanya diurutkan a dan b nya saja  
[1, 2, 4, 5, 6, 7, 8, 9, 9, 1, 4, 5, 6, 8, 9]  
>>>
```

3.



The screenshot shows a Python IDE window titled '3a.py - E:\Kuliah\Praktikum ASD\3a.py (3.7.2)'. The code defines several sorting functions: a swap function, a search function for insertion sort, a bubble sort function, a selection sort function, and an insertion sort function. At the bottom, a list 'k' is initialized with values from 1 to 6001. The IDE has a menu bar with File, Edit, Format, Run, Options, Window, and Help. The status bar at the bottom right shows 'Ln: 1 Col: 0'. The desktop background features a white horse logo on a black background with the text 'inid' below it. The taskbar at the bottom includes icons for Windows, search, Edge, File Explorer, and other applications. The system tray shows the date '03/04/2019' and time '20:58'.

```
3a.py - E:\Kuliah\Praktikum ASD\3a.py (3.7.2)
File Edit Format Run Options Window Help
from time import time as detik
from random import shuffle as kocok

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!=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

k = range(1,6001)
```

Ln: 1 Col: 0