

Nama : Aulia Yogatama

NIM : L200180081

Kelas : C

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Modul 3.py - C:/Users/WINDOWS 10/Downloads/yoga/Algostruk prak/Modul 3/Modul 3.py (3.7.7)
Python 3.7.7 Shell

File Edit Format Run Options Window Help
print("NAMA : Aulia Yogatama")
print("NIM : L200180081")
print("KELAS: C")
print("MODUL: 3"+"\\n")

m1 = [[2,3],[4,5]]
m2 = [[10,20],[5,6]]

#-----NOMER 1A-----#
def cekMat(matrix):
    """memastikan type data Integer"""
    jum = len(matrix)
    hasil = ""
    for x in matrix:
        for i in x:
            assert isinstance(i, int), "Harus Integer"
        return True

#-----NOMER 1B-----#
def Ukuran(matrix):
    """Mengambil ukuran matriks"""
    return "Ukuran Matrix = "+str(len(matrix))+ " x "+str(len(matrix[0]))

#-----NOMER 1C-----#
def Jumlah(matrix1,matrix2):
    """Penjumlahan 2 Matriks"""
    if Ukuran(matrix1) == Ukuran(matrix2):
        for x in range(0, len(matrix1)):
            for y in range(0, len(matrix1[0])):
                print(matrix1[x][y] + matrix2[x][y], ' '),
            print()
        else:
            print("Matriks Tidak Sesuai")

#-----NOMER 1D-----#
def Kali(matrix1,matrix2):
    """Perkalian 2 Matriks"""
    mat3 = []
    if Ukuran(matrix1) == Ukuran(matrix2):
        for x in range(0, len(matrix1)):
            row = []
            for y in range(0, len(matrix1[0])):
                print("NAMA : Aulia Yogatama")
                print("NIM : L200180081")
                print("KELAS: C")
                print("MODUL: 3")

                Nomer 1
                True
                Ukuran Matrix = 2 x 2
                12
                23
                9
                11
                35
                58
                65
                110
                2

                Nomer 2
                [[0, 0, 0], [0, 0, 0], [0, 0, 0]]
                [[0, 0, 0], [0, 0, 0], [0, 0, 0]]
                [[1, 0, 0, 0], [0, 1, 0, 0], [0, 0, 1, 0], [0, 0, 0, 1]]

                nomor 3
                Aulia
                aulia
                Aulia
                Yoga
                Tama
                aulia
                yoga
                tambah depan
                Aulia
```

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File Edit Format Run Options Window Help
print("Nomer 1")
print(cekMat(m1))
print(Ukuran(m1))
Jumlah(m1,m2)
Kali(m1,m2)
print(determinan(m1))

#-----NOMER 2A-----#
def buatNol(m, n):
    """Menggunakan dua input"""
    matrix = [[0 for x in range(m)] for i in range(n)]
    print(matrix)

def buatNol2(m):
    """Menggunakan satu input"""
    n = m
    matrix = [[0 for x in range(m)] for i in range(n)]
    print(matrix)

#-----NOMER 2B-----#
def buatIdentitas(m):
    n = m
    matrix = [[1 if j == i else 0 for j in range(m)] for i in range(n)]
    print(matrix)

#-----CEK NOMER 2-----#

print("Nomer 2")
buatNol(3,3)
buatNol2(3)
buatIdentitas(4)
print("\\n")

#-----NOMER 3-----#
print("nomor 3")
class Node(object):
    def __init__(self, data, next=None):
        self.data = data
        self.next = next

def MakeNode(list):

#-----NOMOR 4-----#
f
awal
akhir
>>>
= RESTART: C:/Users/WINDOWS 10/Downloads/yoga/Algostruk prak/Modul 3/Modul 3.py
NAMA : Aulia Yogatama
NIM : L200180081
KELAS: C
MODUL: 3

Nomer 1
True
Ukuran Matrix = 2 x 2
12
23
9
11
35
58
65
110
2

Nomer 2
[[0, 0, 0], [0, 0, 0], [0, 0, 0]]
[[0, 0, 0], [0, 0, 0], [0, 0, 0]]
[[1, 0, 0, 0], [0, 1, 0, 0], [0, 0, 1, 0], [0, 0, 0, 1]]

nomor 3
Aulia
aulia
Aulia
Yoga
Tama
```

```
Modul 3.py - C:/Users/WINDOWS 10/Downloads/yoga/Algostruk prak/Modul 3/Modul 3.py ...
File Edit Format Run Options Window Help
#-----NOMER 3-----
print("nomor 3")
class Node(object):
    def __init__(self, data, next=None):
        self.data = data
        self.next = next

def MakeNode(list):
    a = Node(list[0])
    if len(list) > 1:
        b = a
        for i in range(1, len(list)):
            b.next = Node(list[i])
            b = b.next
        return a

def kunjungi(head):
    curNode = head
    while curNode != None:
        print(curNode.data)
        curNode = curNode.next

def cari(head, yang_dicari):
    temp = head
    while temp != None:
        if temp.data == yang_dicari:
            return temp
        temp = temp.next
    return None

def tambahDepan(head):
    temp = Node("tambah depan", head)
    return temp

def tambahAkhir(head):
    temp = head
    while temp.next != None:
        temp = temp.next
    temp.next = Node("tambah akhir")
    return head

Python 3.7.7 Shell
File Edit Shell Debug Options Window Help
nomor 3
Aulia
aulia
Aulia
Yoga
Tama
aulia
yoga
tambah depan
Aulia
Yoga
Tama
aulia
yoga
tambah depan
Aulia
Yoga
Tama
aulia
yoga
tambah akhir
tambah depan
Aulia
Yoga
tambah tengah
Tama
aulia
yoga
tambah akhir
tambah depan
Aulia
Yoga
tambah tengah
aulia
yoga
tambah akhir
Ln: 196 Col: 18
Ln: 97 Col: 0
Type here to search
4:39 PM
3/26/2020
```

```
Modul 3.py - C:/Users/WINDOWS 10/Downloads/yoga/Algostruk prak/Modul 3/Modul 3.py ...
File Edit Format Run Options Window Help
def tambahAkhir(head):
    temp = head
    while temp.next != None:
        temp = temp.next
    temp.next = Node("tambah akhir")
    return head

def tambah(head, posisi):
    """ Menambahkan simpul sebelum posisi """
    temp = head
    while temp != None:
        if temp.next.data == posisi:
            temp_belakang = temp.next
            temp.next = Node("tambah tengah", temp_belakang)
            return head
        temp = temp.next
    return None

def hapus(head, posisi):
    temp = head
    while temp != None:
        if temp.next.data == posisi:
            temp_belakang = temp.next.next
            temp.next = temp_belakang
            return head
        temp = temp.next
    return None

a = MakeNode(["Aulia", "Yoga", "Tama", "aulia", "yoga"])
print(a.data)
c = cari(a, "Tama")
print(c.next.data)

print()
kunjungi(a)

print()
a = tambahDepan(a)
kunjungi(a)

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nomor 3
Aulia
aulia
Aulia
Yoga
Tama
aulia
yoga
tambah depan
Aulia
Yoga
Tama
aulia
yoga
tambah depan
Aulia
Yoga
Tama
aulia
yoga
tambah akhir
tambah depan
Aulia
Yoga
tambah tengah
Tama
aulia
yoga
tambah akhir
tambah depan
Aulia
Yoga
tambah tengah
aulia
yoga
tambah akhir
Ln: 196 Col: 18
Ln: 97 Col: 0
Type here to search
4:40 PM
3/26/2020
```

