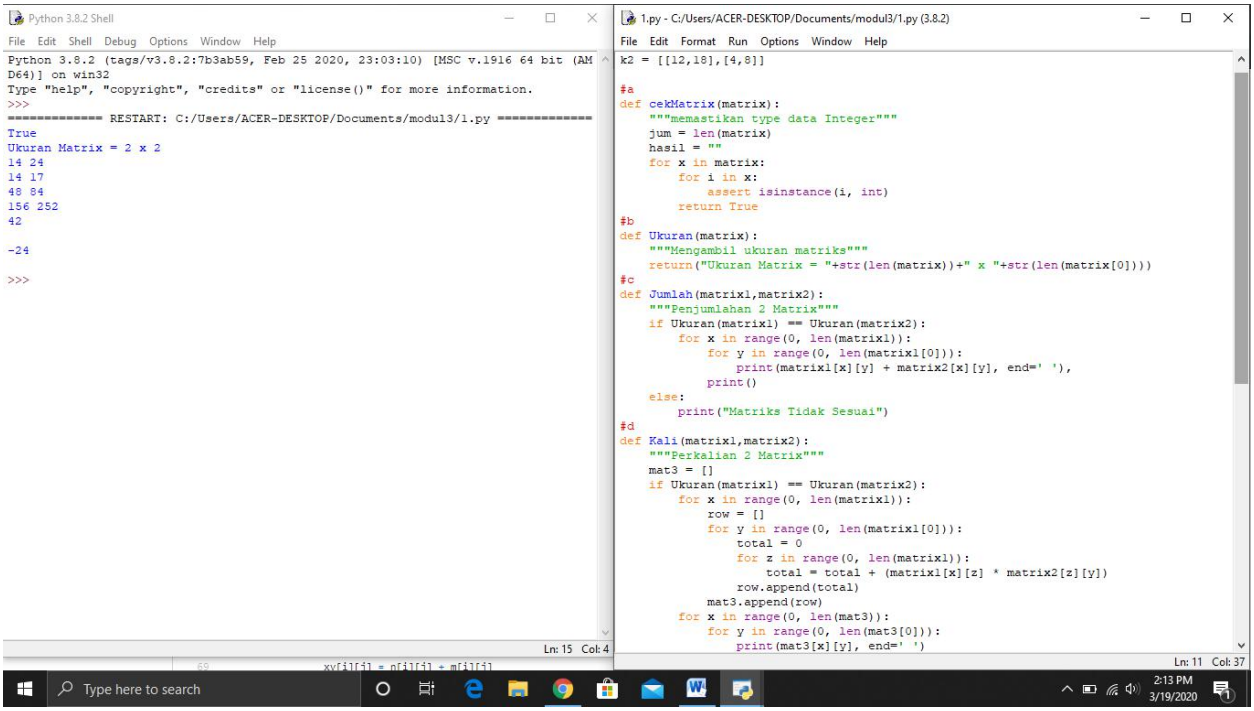
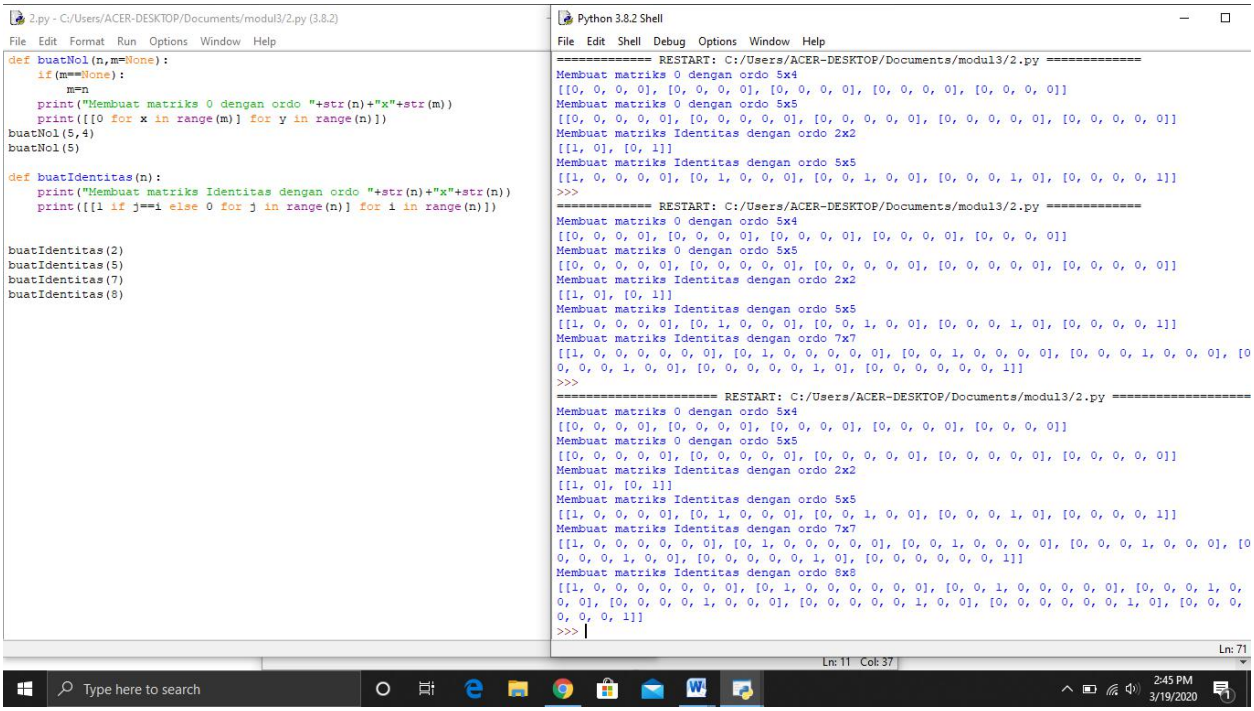
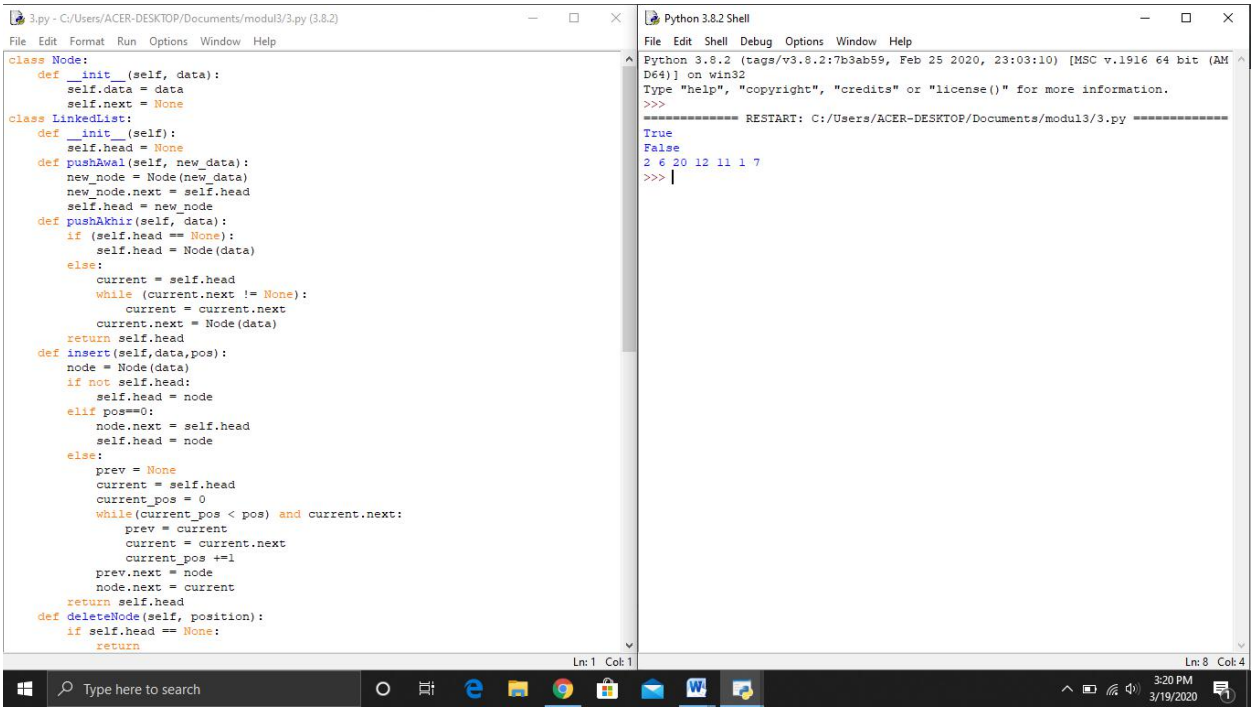
1.


Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:/Users/ACER-DESKTOP/Documents/modul3/1.py ==========
True
Ukuran Matrix = 2 x 2
14 24
14 17
48 84
156 252
42
-24
>>>
1.py - C:/Users/ACER-DESKTOP/Documents/modul3/1.py (3.8.2)
File Edit Format Run Options Window Help
k2 = [[12,18],[4,8]]
#a
def cekMatrix(matrix):
"""memastikan type data Integer"""
jum = len(matrix)
hasil = ""
for x in matrix:
for i in x:
assert isinstance(i, int)
return True
#b
def Ukuran(matrix):
"""Mengambil ukuran matriks"""
return("Ukuran Matrix = "+str(len(matrix))+" x "+str(len(matrix[0])))
#c
def Jumlah(matrix1,matrix2):
"""Penjumlahan 2 Matrix"""
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], end=' '),
print()
else:
print("Matriks Tidak Sesuai")
#d
def Kali(matrix1,matrix2):
"""Perkalian 2 Matrix"""
mat3 = []
if Ukuran(matrix1) == Ukuran(matrix2):
for x in range(0, len(matrix1)):
row = []
for y in range(0, len(matrix1[0])):
total = 0
for z in range(0, len(matrix1)):
total = total + (matrix1[x][z] * matrix2[z][y])
row.append(total)
mat3.append(row)
for x in range(0, len(mat3)):
for y in range(0, len(mat3[0])):
print(mat3[x][y], end=' ')
Ln: 15 Col: 4
Ln: 11 Col: 37
Type here to search
2:13 PM
3/19/2020

2.


2.py - C:/Users/ACER-DESKTOP/Documents/modul3/2.py (3.8.2)
File Edit Format Run Options Window Help
def buatNol(n,m=None):
if(m==None):
m=n
print("Membuat matriks 0 dengan ordo "+str(n)+"x"+str(m))
print([[0 for x in range(m)] for y in range(n)])
buatNol(5,4)
buatNol(5)
def buatIdentitas(n):
print("Membuat matriks Identitas dengan ordo "+str(n)+"x"+str(n))
print([[1 if j==i else 0 for j in range(n)] for i in range(n)])
buatIdentitas(2)
buatIdentitas(5)
buatIdentitas(7)
buatIdentitas(8)
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
========== RESTART: C:/Users/ACER-DESKTOP/Documents/modul3/2.py ==========
Membuat matriks 0 dengan ordo 5x4
[[0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0]]
Membuat matriks 0 dengan ordo 5x5
[[0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0]]
Membuat matriks Identitas dengan ordo 2x2
[[1, 0], [0, 1]]
Membuat matriks Identitas dengan ordo 5x5
[[1, 0, 0, 0, 0], [0, 1, 0, 0, 0], [0, 0, 1, 0, 0], [0, 0, 0, 1, 0], [0, 0, 0, 0, 1]]
>>>
========== RESTART: C:/Users/ACER-DESKTOP/Documents/modul3/2.py ==========
Membuat matriks 0 dengan ordo 5x4
[[0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0]]
Membuat matriks 0 dengan ordo 5x5
[[0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0]]
Membuat matriks Identitas dengan ordo 2x2
[[1, 0], [0, 1]]
Membuat matriks Identitas dengan ordo 5x5
[[1, 0, 0, 0, 0], [0, 1, 0, 0, 0], [0, 0, 1, 0, 0], [0, 0, 0, 1, 0], [0, 0, 0, 0, 1]]
Membuat matriks Identitas dengan ordo 7x7
[[1, 0, 0, 0, 0, 0, 0], [0, 1, 0, 0, 0, 0, 0], [0, 0, 1, 0, 0, 0, 0], [0, 0, 0, 1, 0, 0, 0], [0, 0, 0, 1, 0, 0, 0], [0, 0, 0, 0, 0, 1, 0], [0, 0, 0, 0, 0, 0, 1]]
>>>
========== RESTART: C:/Users/ACER-DESKTOP/Documents/modul3/2.py ==========
Membuat matriks 0 dengan ordo 5x4
[[0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0], [0, 0, 0, 0]]
Membuat matriks 0 dengan ordo 5x5
[[0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0], [0, 0, 0, 0, 0]]
Membuat matriks Identitas dengan ordo 2x2
[[1, 0], [0, 1]]
Membuat matriks Identitas dengan ordo 5x5
[[1, 0, 0, 0, 0], [0, 1, 0, 0, 0], [0, 0, 1, 0, 0], [0, 0, 0, 1, 0], [0, 0, 0, 0, 1]]
Membuat matriks Identitas dengan ordo 7x7
[[1, 0, 0, 0, 0, 0, 0], [0, 1, 0, 0, 0, 0, 0], [0, 0, 1, 0, 0, 0, 0], [0, 0, 0, 1, 0, 0, 0], [0, 0, 0, 1, 0, 0, 0], [0, 0, 0, 0, 0, 1, 0], [0, 0, 0, 0, 0, 0, 1]]
Membuat matriks Identitas dengan ordo 8x8
[[1, 0, 0, 0, 0, 0, 0, 0], [0, 1, 0, 0, 0, 0, 0, 0], [0, 0, 1, 0, 0, 0, 0, 0], [0, 0, 0, 1, 0, 0, 0, 0], [0, 0, 0, 0, 1, 0, 0, 0], [0, 0, 0, 0, 0, 1, 0, 0], [0, 0, 0, 0, 0, 0, 1, 0], [0, 0, 0, 0, 0, 0, 0, 1]]
>>>
Ln: 11 Col: 37
Ln: 71
Type here to search
2:45 PM
3/19/2020

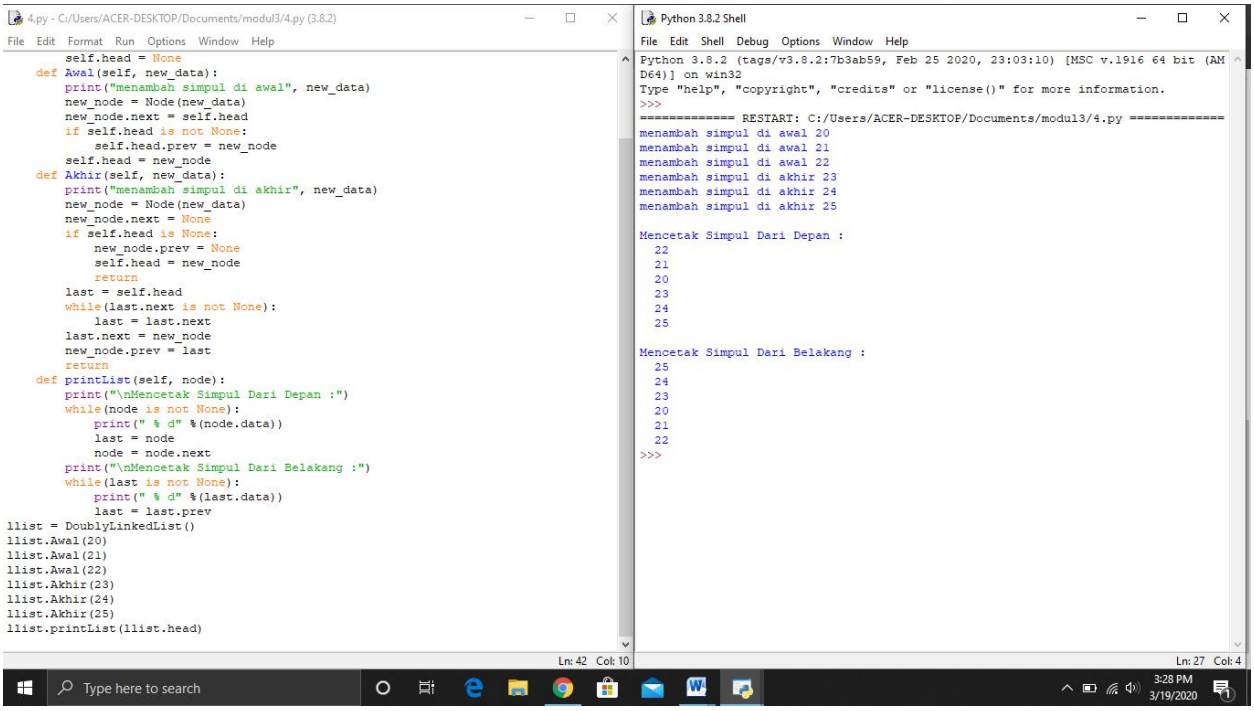
3.



```
class Node:
    def __init__(self, data):
        self.data = data
        self.next = None
class LinkedList:
    def __init__(self):
        self.head = None
    def pushAwal(self, new_data):
        new_node = Node(new_data)
        new_node.next = self.head
        self.head = new_node
    def pushAkhir(self, data):
        if (self.head == None):
            self.head = Node(data)
        else:
            current = self.head
            while (current.next != None):
                current = current.next
            current.next = Node(data)
        return self.head
    def insert(self,data,pos):
        node = Node(data)
        if not self.head:
            self.head = node
        elif pos==0:
            node.next = self.head
            self.head = node
        else:
            prev = None
            current = self.head
            current_pos = 0
            while(current_pos < pos) and current.next:
                prev = current
                current = current.next
                current_pos +=1
            prev.next = node
            node.next = current
        return self.head
    def deleteNode(self, position):
        if self.head == None:
            return
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AM
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:/Users/ACER-DESKTOP/Documents/modul3/3.py ==========
True
False
2 6 20 12 11 1 7
>>>
```

4.



```
        self.head = None
    def Awal(self, new_data):
        print("menambah simpul di awal", new_data)
        new_node = Node(new_data)
        new_node.next = self.head
        if self.head is not None:
            self.head.prev = new_node
        self.head = new_node
    def Akhir(self, new_data):
        print("menambah simpul di akhir", new_data)
        new_node = Node(new_data)
        new_node.next = None
        if self.head is None:
            new_node.prev = None
            self.head = new_node
            return
        last = self.head
        while(last.next is not None):
            last = last.next
        last.next = new_node
        new_node.prev = last
        return
    def printList(self, node):
        print("\nMencetak Simpul Dari Depan :")
        while(node is not None):
            print(" %d" %(node.data))
            last = node
            node = node.next
        print("\nMencetak Simpul Dari Belakang :")
        while(last is not None):
            print(" %d" %(last.data))
            last = last.prev
llist = DoublyLinkedList()
llist.Awal(20)
llist.Awal(21)
llist.Awal(22)
llist.Akhir(23)
llist.Akhir(24)
llist.Akhir(25)
llist.printList(llist.head)
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AM
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:/Users/ACER-DESKTOP/Documents/modul3/4.py ==========
menambah simpul di awal 20
menambah simpul di awal 21
menambah simpul di awal 22
menambah simpul di akhir 23
menambah simpul di akhir 24
menambah simpul di akhir 25

Mencetak Simpul Dari Depan :
  22
  21
  20
  23
  24
  25

Mencetak Simpul Dari Belakang :
  25
  24
  23
  20
  21
  22
>>>
```