

Nama : Annas Fagiat

Kelas : D

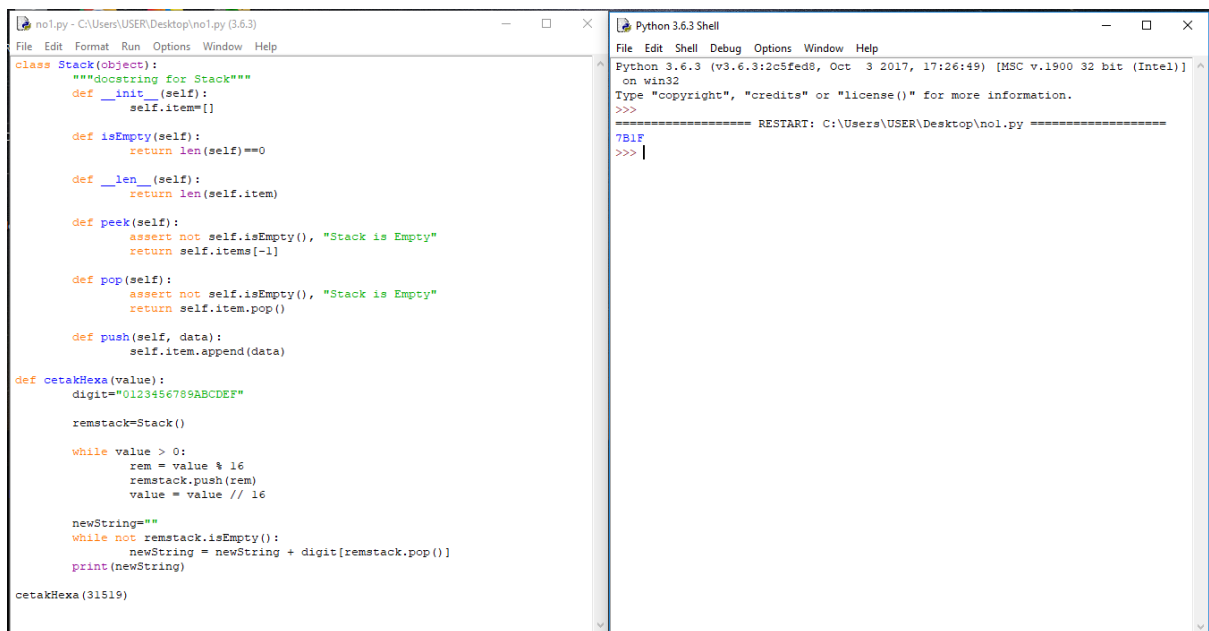
Nim : L200170163

LAPORAN PRAKTIKUM

ALGORITMA DAN STRUKTUR DATA

MODUL KE 8

Nomor 1



```
no1.py - C:\Users\USER\Desktop\no1.py (3.6.3)
File Edit Format Run Options Window Help

class Stack(object):
    """docstring for Stack"""
    def __init__(self):
        self.item=[]

    def isEmpty(self):
        return len(self)==0

    def __len__(self):
        return len(self.item)

    def peek(self):
        assert not self.isEmpty(), "Stack is Empty"
        return self.item[-1]

    def pop(self):
        assert not self.isEmpty(), "Stack is Empty"
        return self.item.pop()

    def push(self, data):
        self.item.append(data)

def cetakHexa(value):
    digit="0123456789ABCDEF"

    remstack=Stack()

    while value > 0:
        rem = value % 16
        remstack.push(rem)
        value = value // 16

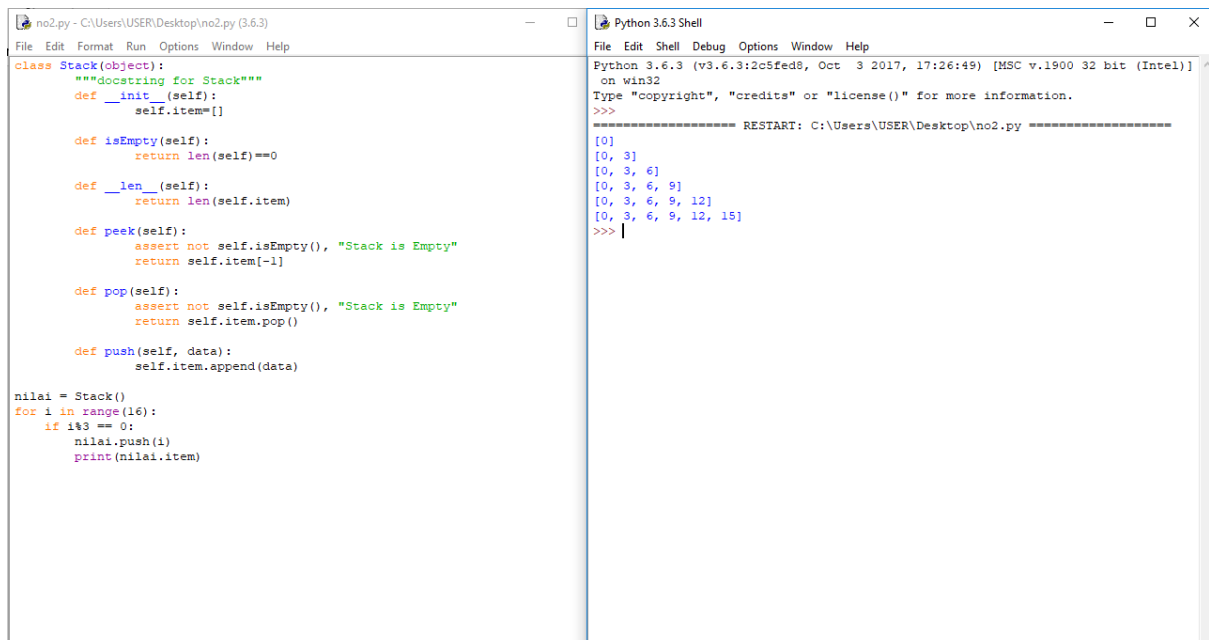
    newString=""
    while not remstack.isEmpty():
        newString = newString + digit[remstack.pop()]
    print(newString)

cetakHexa(31519)
```

```
Python 3.6.3 Shell
File Edit Shell Debug Options Window Help

Python 3.6.3 (v3.6.3:2c5fed8, Oct 3 2017, 17:26:49) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\no1.py =====
781F
>>> |
```

Nomor 2



```
no2.py - C:\Users\USER\Desktop\no2.py (3.6.3)
File Edit Format Run Options Window Help

class Stack(object):
    """docstring for Stack"""
    def __init__(self):
        self.item=[]

    def isEmpty(self):
        return len(self)==0

    def __len__(self):
        return len(self.item)

    def peek(self):
        assert not self.isEmpty(), "Stack is Empty"
        return self.item[-1]

    def pop(self):
        assert not self.isEmpty(), "Stack is Empty"
        return self.item.pop()

    def push(self, data):
        self.item.append(data)

nilai = Stack()
for i in range(16):
    if i%3 == 0:
        nilai.push(i)
        print(nilai.item)
```

```
Python 3.6.3 Shell
File Edit Shell Debug Options Window Help

Python 3.6.3 (v3.6.3:2c5fed8, Oct 3 2017, 17:26:49) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\no2.py =====
[0]
[0, 3]
[0, 3, 6]
[0, 3, 6, 9]
[0, 3, 6, 9, 12]
[0, 3, 6, 9, 12, 15]
>>> |
```

Keterangan

i	i % 3 = 0	push
0	True	[0]
1	False	
2	False	
3	True	[0,3]
4	False	
5	False	
6	True	[0,3,6]
7	False	
8	False	
9	True	[0,3,6,9]
10	False	
11	False	
12	True	[0,3,6,9,12]
13	False	
14	False	
15	True	[0,3,6,9,12,15]

Nomor 3

```

no3.py - C:\Users\USER\Desktop\no3.py (3.6.3)
File Edit Format Run Options Window Help

class Stack(object):
    """docstring for Stack"""
    def __init__(self):
        self.item=[]

    def isEmpty(self):
        return (len(self.item))==0

    def __len__(self):
        return len(self.item)

    def peek(self):
        if self.isEmpty() == True:
            return None
        else:
            return self.item[-1]

    def pop(self):
        if self.isEmpty() == True:
            print("Stack is Empty")
        else:
            return self.item.pop()

    def push(self, data):
        self.item.append(data)

nilai = Stack()
for i in range(16):
    if i%3 == 0:
        nilai.push(i)
    elif i%4 == 0:
        nilai.pop()
print(nilai.item)

Python 3.6.3 Shell
File Edit Shell Debug Options Window Help
Python 3.6.3 (v3.6.3:2c5fed8, Oct 3 2017, 17:26:49) [MSC v.1900 32 bit (Intel) on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\no3.py =====
>>> [0, 9, 12, 15]
>>> |
  
```

Keterangan

i	i % 3 = 0	push	i % 4 = 0	pop
0	True	[0]	-	
1	False		False	
2	False		False	

3	True	[0,3]	-	
4	False		True	[0]
5	False		False	
6	True	[0,6]	-	
7	False		False	
8	False		True	[0]
9	True	[0,9]	-	
10	False		False	
11	False		False	
12	True	[0,9,12]	-	
13	False		False	
14	False		False	
15	True	[0, 9,12,15]	-	