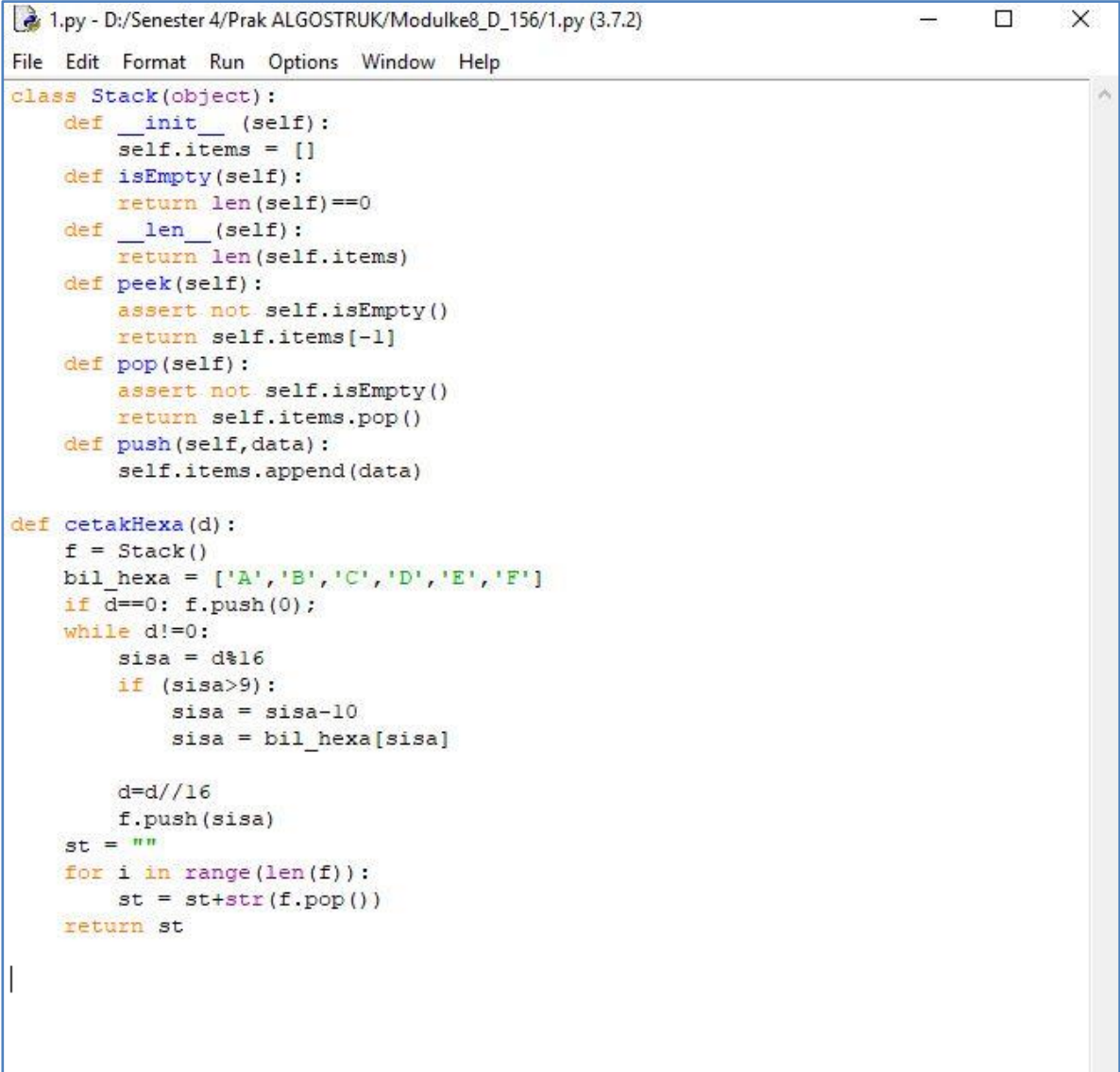


**TUGAS PRAKTIKUM
ALGORITMA DAN STRUKTUR DATA
MODUL 8 “STACKS AND QUEUES”**

1. Berikut screenshot programnya :



```
1.py - D:/Senester 4/Prak ALGOSTRUK/Modulke8_D_156/1.py (3.7.2)
File Edit Format Run Options Window Help

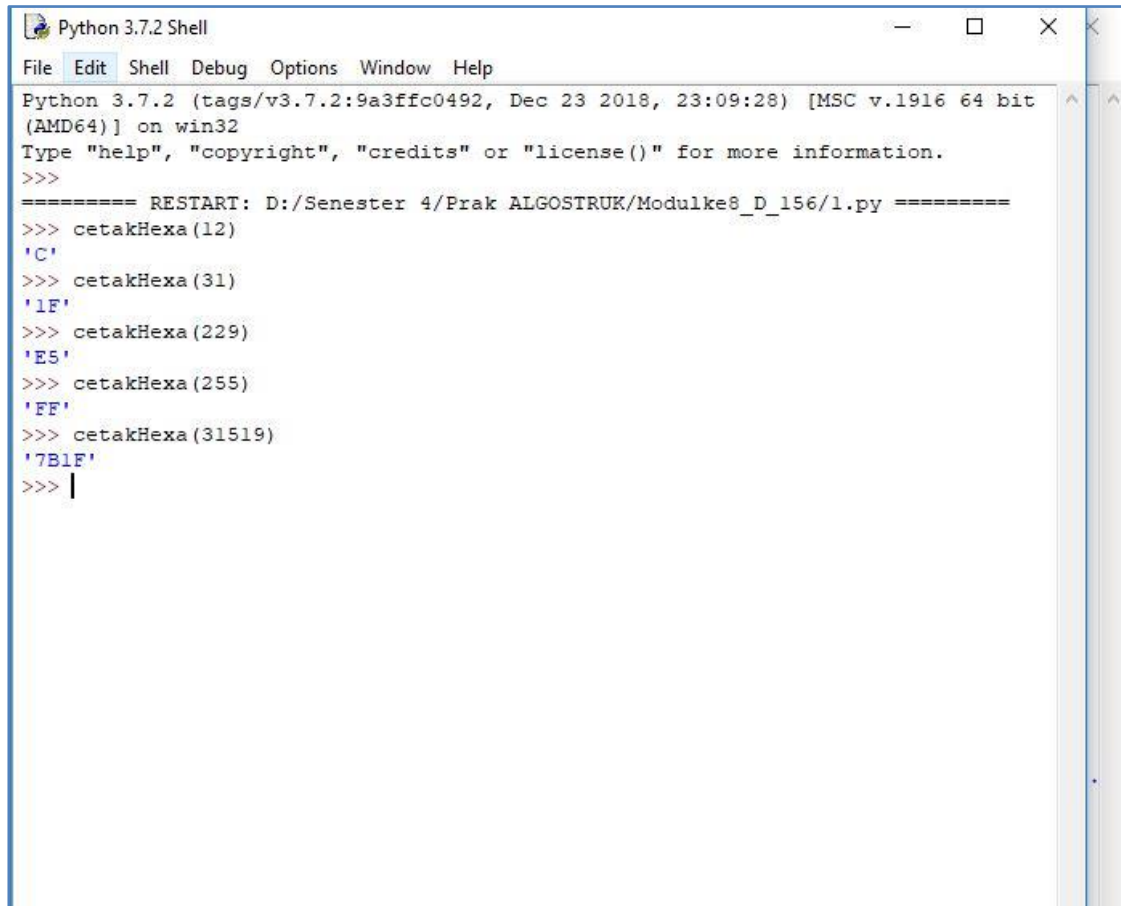
class Stack(object):
    def __init__(self):
        self.items = []
    def isEmpty(self):
        return len(self)==0
    def __len__(self):
        return len(self.items)
    def peek(self):
        assert not self.isEmpty()
        return self.items[-1]
    def pop(self):
        assert not self.isEmpty()
        return self.items.pop()
    def push(self,data):
        self.items.append(data)

def cetakHexa(d):
    f = Stack()
    bil_hexa = ['A','B','C','D','E','F']
    if d==0: f.push(0);
    while d!=0:
        sisa = d%16
        if (sisa>9):
            sisa = sisa-10
            sisa = bil_hexa[sisa]

        d=d//16
        f.push(sisa)
    st = ""
    for i in range(len(f)):
        st = st+str(f.pop())
    return st
```

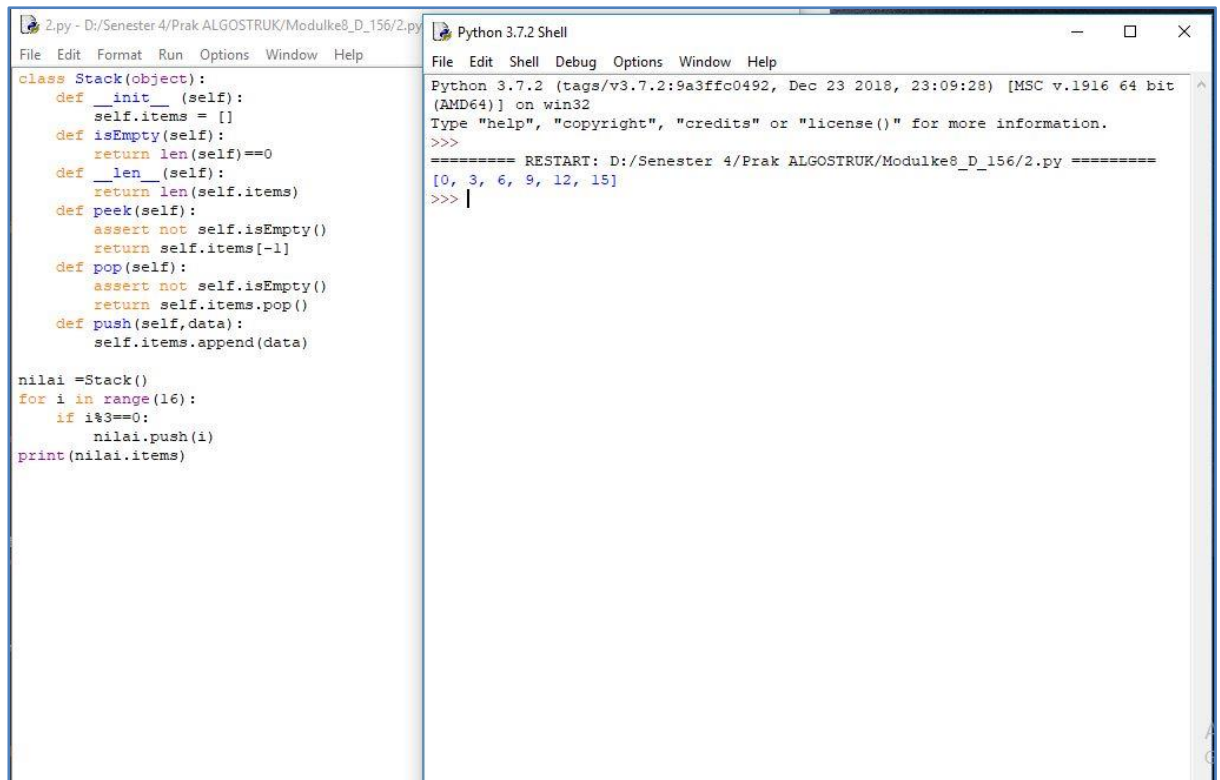
Berikut output programnya :

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```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 23:09:28) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/Senester 4/Prak ALGOSTRUK/Modulke8_D_156/1.py =====
>>> cetakHexa(12)
'C'
>>> cetakHexa(31)
'1F'
>>> cetakHexa(229)
'E5'
>>> cetakHexa(255)
'FF'
>>> cetakHexa(31519)
'7B1F'
>>> |
```

2. Berikut screenshot programnya :

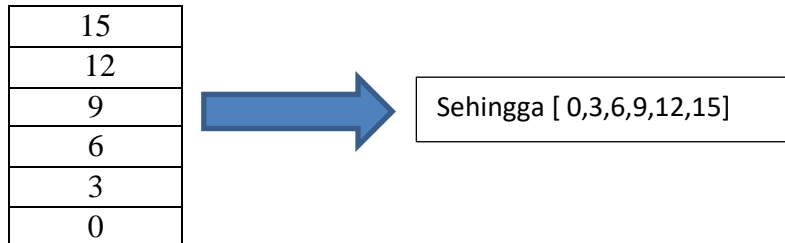


```
2.py - D:/Senester 4/Prak ALGOSTRUK/Modulke8_D_156/2.py
File Edit Format Run Options Window Help
class Stack(object):
    def __init__(self):
        self.items = []
    def isEmpty(self):
        return len(self)==0
    def __len__(self):
        return len(self.items)
    def peek(self):
        assert not self.isEmpty()
        return self.items[-1]
    def pop(self):
        assert not self.isEmpty()
        return self.items.pop()
    def push(self,data):
        self.items.append(data)

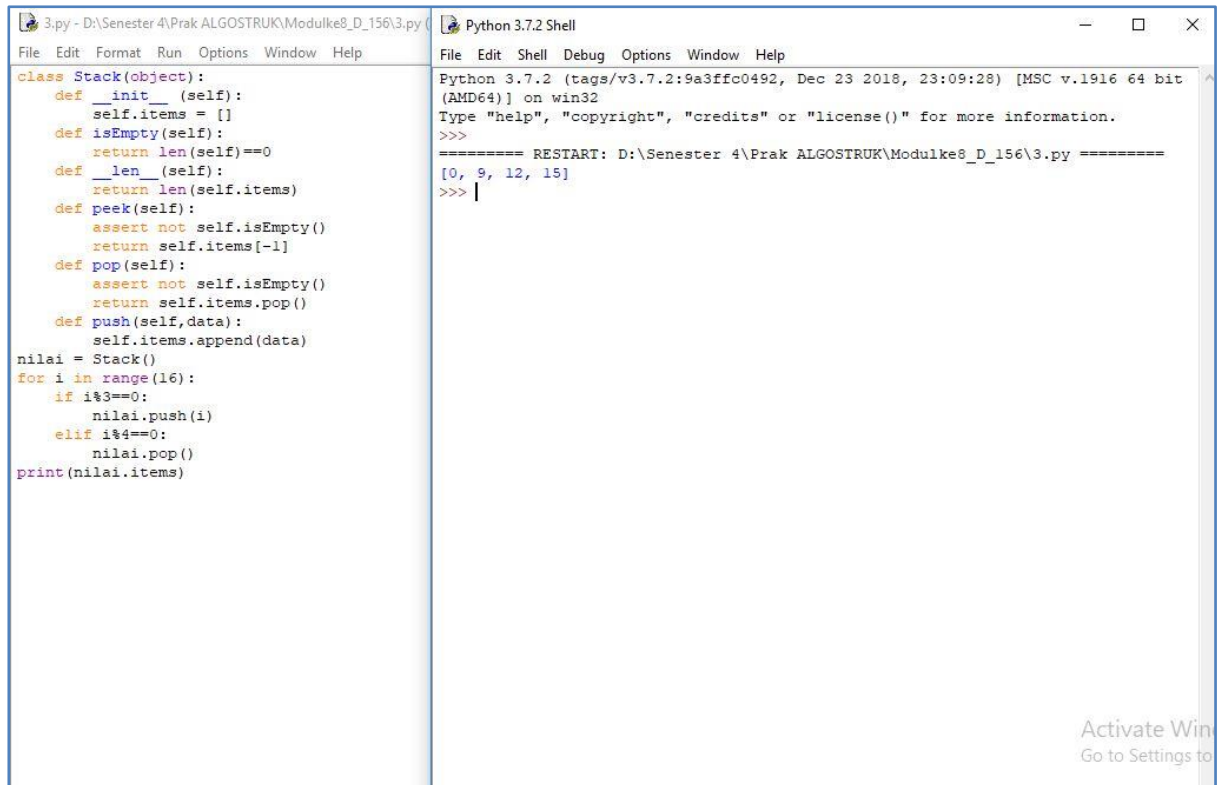
nilai =Stack()
for i in range(16):
    if i%3==0:
        nilai.push(i)
print(nilai.items)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 23:09:28) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/Senester 4/Prak ALGOSTRUK/Modulke8_D_156/2.py =====
[0, 3, 6, 9, 12, 15]
>>> |
```

Nilai i dengan rentang 0-15 jika rentang i sisa bagi nya = 0 maka sisa tersebut dimasukan ke dalam stack. Setelah program dijalankan nilai i yang memiliki sisa bagi = 0 adalah 0,3,6,9,12,15.



3. Berikut screenshot programnya :



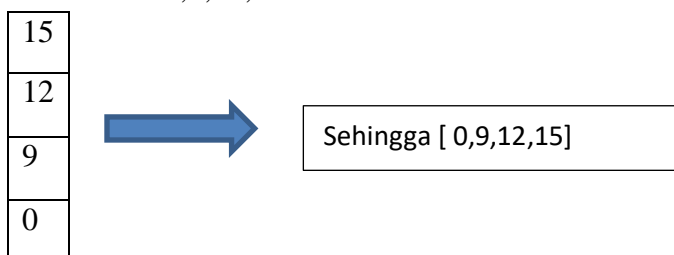
```
class Stack(object):
    def __init__(self):
        self.items = []
    def isEmpty(self):
        return len(self)==0
    def __len__(self):
        return len(self.items)
    def peek(self):
        assert not self.isEmpty()
        return self.items[-1]
    def pop(self):
        assert not self.isEmpty()
        return self.items.pop()
    def push(self,data):
        self.items.append(data)

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

Python 3.7.2 Shell

Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 23:09:28) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Senester 4\Prak ALGOSTRUK\Modulke8_D_156\3.py =====
[0, 9, 12, 15]
>>> |

Nilai i dengan rentang 0-15 jika rentang i sisa bagi nya = 0 maka sisa tersebut dimasukan ke dalam stack. Setelah program dijalankan nilai i yang memiliki sisa bagi = 0 adalah 0,9,12,15.



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