

## LAPORAN PRAKTIKUM ALGORITMA DAN STRUKTUR DATA MODUL 8

Nama : Afnan Fauzi Hidayat

NIM : L200170148

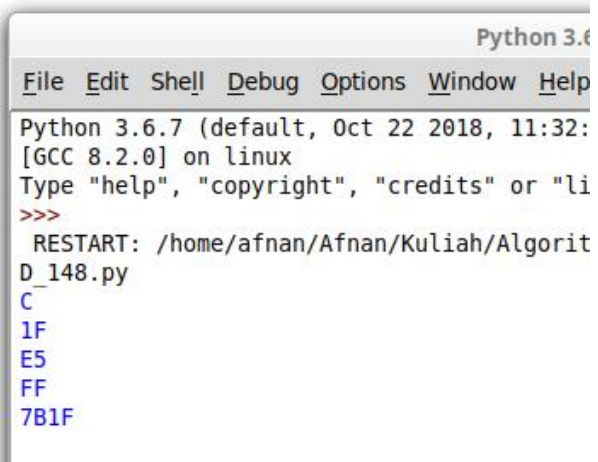
Kelas : D

### Nomor 1

```
class Stack():
    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):
        return self.items.append(data)
```

```
#No 1
def cetakHexa(data):
    hx = Stack()
    hxlist = "0123456789ABCDEF"
    while data != 0:
        sisa = data%16
        data = data//16
        hx.push(hxlist[sisa])
    st=""
    for i in range(len(hx)):
        st = st + str(hx.pop())
    return st

print(cetakHexa(12))
print(cetakHexa(31))
print(cetakHexa(229))
print(cetakHexa(255))
print(cetakHexa(31519))
```



```
Python 3.6.7
File Edit Shell Debug Options Window Help
Python 3.6.7 (default, Oct 22 2018, 11:32:
[GCC 8.2.0] on linux
Type "help", "copyright", "credits" or "li
>>>
RESTART: /home/afnan/Afnan/Kuliah/Algorit
D_148.py
C
1F
E5
FF
7B1F
```

### Nomor 2

```
print('\n')
#No 2
nilai = Stack()
for i in range(16):
    if i%3 == 0:
        nilai.push(i)
        print(nilai.items)
```

```
[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

```
print('\n')
#No 3
nilai = Stack()
for i in range(16):
    if i%3 == 0:
        nilai.push(i)
    elif i%4 == 0:
        nilai.pop()
print(nilai.items)
```

```
[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	<b>[0,9]</b>	-	
10	False		False	
11	False		False	
12	True	<b>[0,9,12]</b>	-	
13	False		False	
14	False		False	
15	True	<b>[0,9,12,15]</b>	-	