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## Class Stack

```
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)

'''s=Stack()
s.push(3)
s.push(7)
s.push(4)
s.push(15)
s.push(25)
print(s.items)
print(s.pop())'''
```

## Nomor 1

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

print(cetakHexa(12))
print(cetakHexa(31))
print(cetakHexa(299))
print(cetakHexa(255))
print(cetakHexa(31519))
```

No. 1
C
1F
12B
FF
7B1F

## Nomor 2

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

```
No. 2
[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("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)
```

No. 3  
[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]	-	