

Döngüler

While- for loops



Döngüler (while & for loops) - İçerik

- ▶ Döngü kavramı
- ▶ while döngüsü
- ▶ Sonsuz döngü
- ▶ for döngüsü
- ▶ break
- ▶ continue
- ▶ Örnek bir döngünün incelenmesi



Döngüler - iteration/repeated loops ?

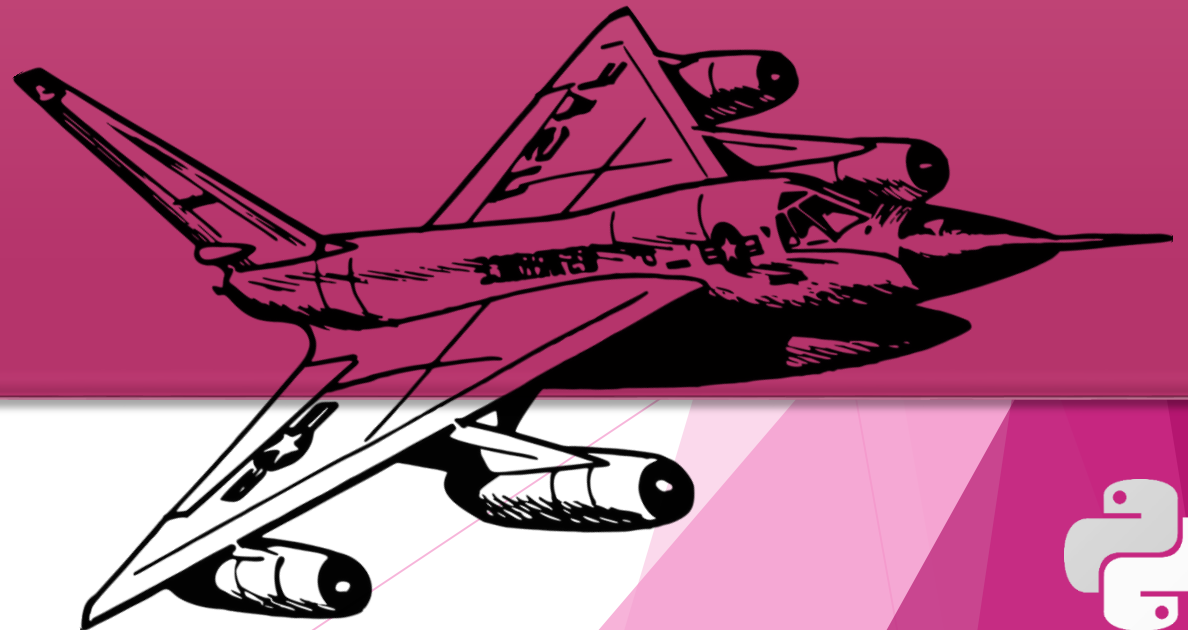
```
liste = ["Hakan", "Kaan", "Ayşe", "Zeynep", "Soner",...]
```

```
print("Merhaba.. Hakan")  
print("Merhaba.. Kaan")  
print("Merhaba.. Ayşe")  
print("Merhaba.. Zeynep")  
print("Merhaba.. Soner")
```

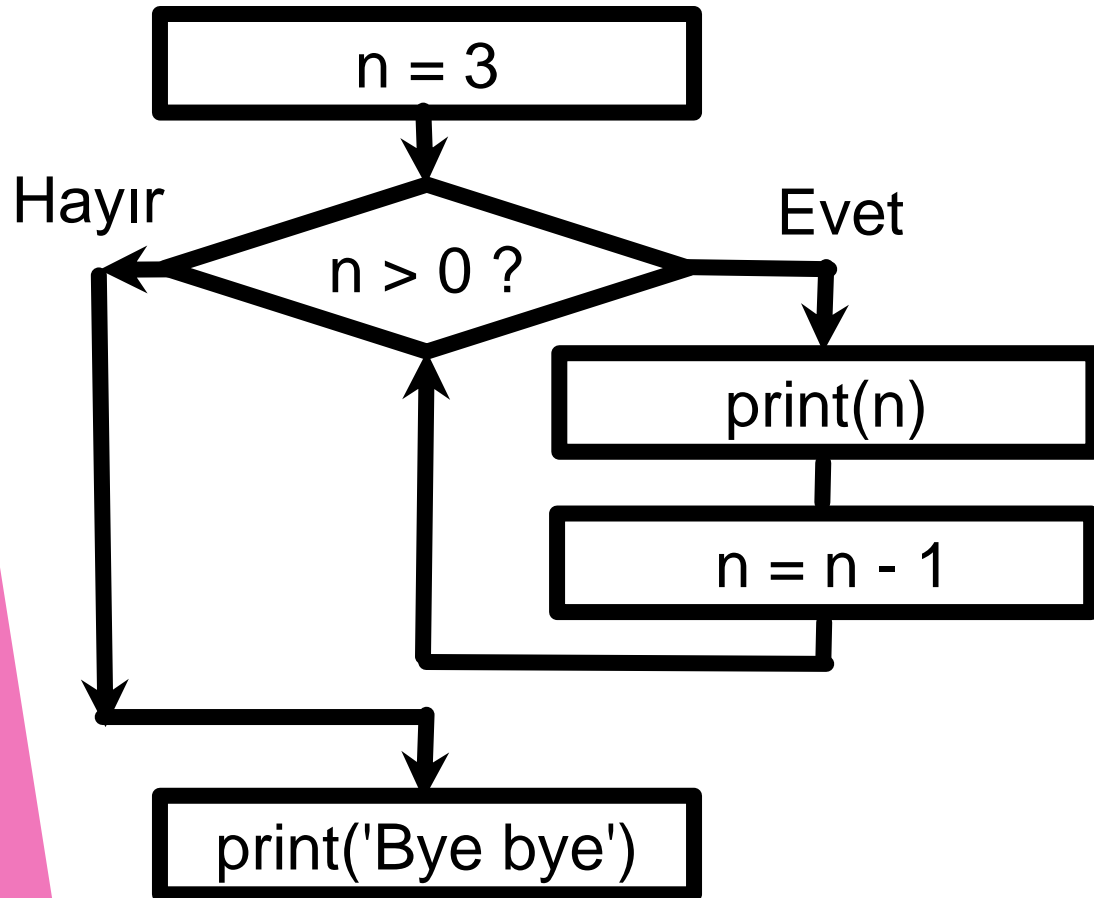
...



```
for isim in liste:  
    print("Merhaba.. ",isim)
```



Döngüler - while (repeated loops)



Program:

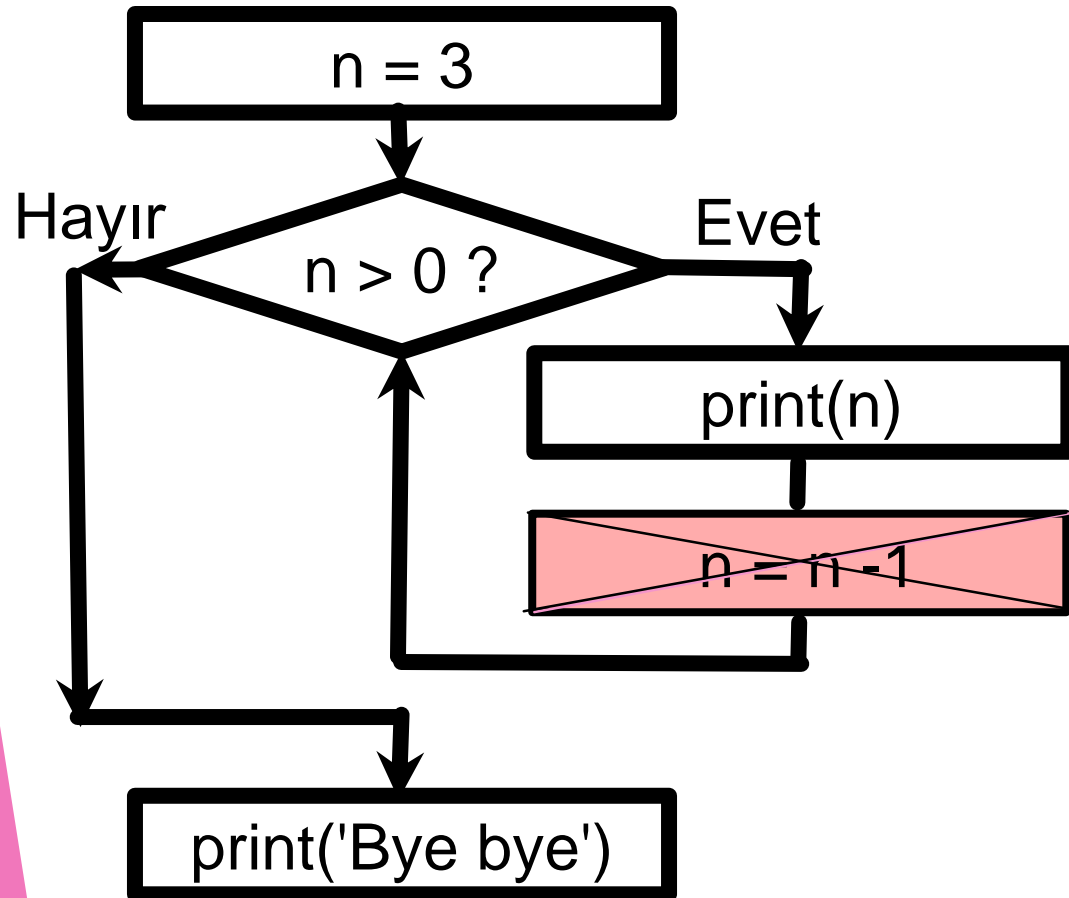
```
n = 3
while n > 0 :
    print(n)
    n = n - 1
print('Bye bye')
print(n)
```

Output:

```
3
2
1
Bye bye
0
```



Sonsuz Döngü (Infinite loop) while



Program:

```
n = 3
while n > 0 :
    print(n)
    n = n - 1
print('Bye bye')
print(n)
```

Output:

```
3
3
3
3
...
...
```



Döngüler for..in Loops

(iteration/repeated loops)

```
for i in list/str:  
    pass                # list/str. her bir eleman için yap  
for x in range(10):  
    pass                # 10 defa yap (0 - 9)  
for x in range(5,10):  
    pass                # 5 defa yap (5 - 9)
```

```
for i in range(3):  
    print(i)
```

```
→ 0  
→ 1  
→ 2
```

```
for i in 'abc':  
    print(i)
```

```
→ a  
→ b  
→ c
```



Döngüden Çıkma (break)

```
while True:  
    komut = input("")  
    if komut == 'kapat' :  
        break  
    print(komut)  
print('Program kapatıldı!')
```



Merhaba
→ Merhaba
kapat
→ Program kapatıldı!



continue

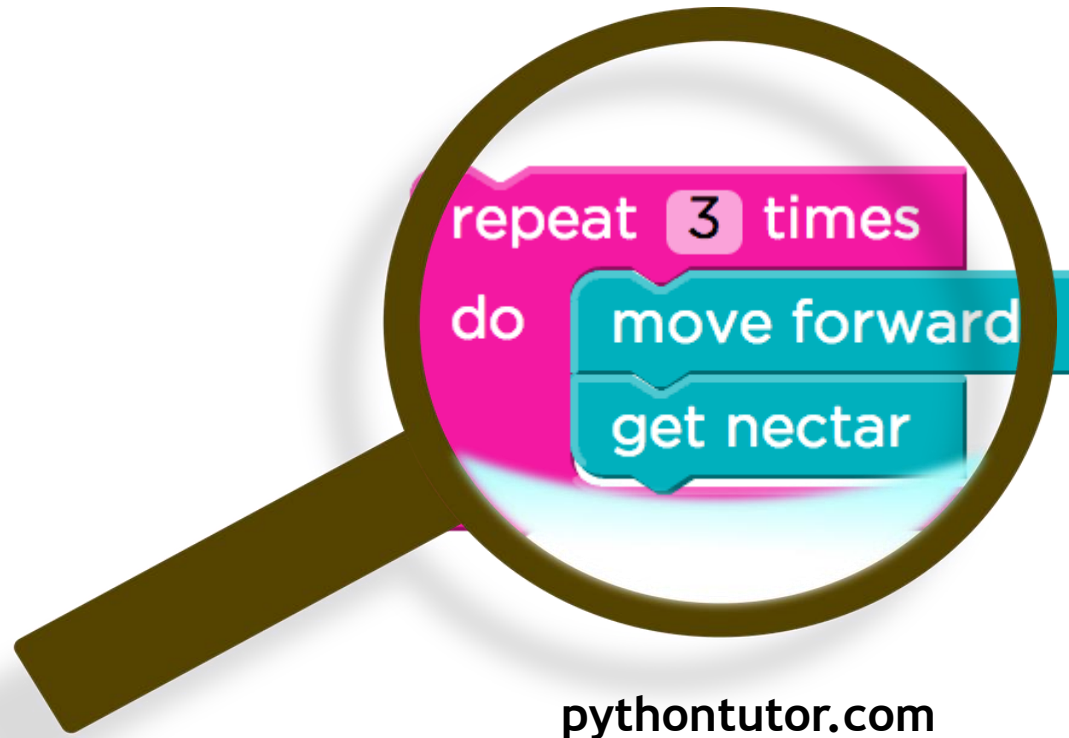
```
for harf in 'Python':  
    if harf == 'h':  
        continue  
    print('Mevcut harf :', harf)
```



```
Mevcut harf : P  
Mevcut harf : y  
Mevcut harf : t  
Mevcut harf : o  
Mevcut harf : n
```



Örnek bir döngü mantığını inceleyelim



Döngüler (while & for loops) - Özet

- ▶ `while a<b:pass`
- ▶ `While True:pass`
- ▶ `for item in liste:pass`
- ▶ Break ile döngüyü sonlandırma
- ▶ `continue` ile sonraki iterasyondan devam etme
- ▶ [Pythonutor.com](https://pythonutor.com) - örnek incelemesi



Bölüm Sonu

Sonraki Derste Görüşmek Üzere
Happy Pythoning!

