```python
#Modüller: math, random
#Toolbox'lar: numpy, scipy, pandas
import keyword
print(keyword.kwlist)

len(keyword.kwlist)

1var = 10

val2@ = 35

import = 125

val2 = 10

val_ = 99

#Yorum satırları
val1 = 10

'''
Multiple
Line
Comment
'''
val2 = 20

"""
Multiple
Line
Comment
"""
val3 = 30

#İfadeler (Statement), Tek Satırlı
p1 = 10 + 20
p1

p2 = ['a', 'b', 'c', 'd']
p2

#İfadeler (Statement), Çok Satırlı
p1 = 20 + 30 \
    + 40 + 50 + \
    + 70 + 80
p1

p2 = ['a',
      'b',
      'c',
      'd'
```

```
    ]
p2

#Hizalama (Indentation) {}
p = 10
if p == 10:
print('P is equal to 10')

p = 10
if p == 10:
    print('P is equal to 10')

for i in range(0, 5):
print(i)

for i in range(0, 5):
    print(i)

#scope (kapsam)
j = 20
for i in range(0, 5):
    print(i)
    print(j)

#Değişken Atamaları
p = 30
id(p)

hex(id(p))

intvar = 10
floatvar = 2.57
strvar = "Python Language"

print(intvar, floatvar, strvar)

print(intvar)
print(floatvar)
print(strvar)

p1 = p2 = p3 = p4 = 44
print(p1, p2, p3, p4, sep = '\t\t')

import sys

#Data Types -> Complex
val3 = 25 + 10j
print(val3)
print(type(val3))
print(sys.getsizeof(val3)) #bellekte kaç byte yer kaplıyor?
print(val3, " is complex?", isinstance(val3, complex)) #True veya
False döndürür
```

```python
#Boolean sınıfı
bool1 = True

bool2 = False

print(type(bool1))

isinstance(bool1, bool)

bool(0)

bool(1)

bool(None)

#String Üretme

str1 = "HELLO PYTHON"

print(str1)

mystr = '''Hello
           World'''
print(mystr)

mystr2 = 'Wohooo '
mystr2 = mystr2 * 5
mystr2

len(mystr2)

#Karar Yapıları

a = 6
b = 7

print(not a == 7 and b == 7)
print(a == 7 or b == 7)
print(a == 7 or b == 6)
print(not(a == 7 and b == 6))
print(not a == 7 and b == 6)

string1 = "abc def ghi"
string2 = "def ghi abc"

print(string1 == string2)

print(string1 != string2)

#Input function kullanarak bir websitesine login uygulaması
username = input("What is your username?")
password = input("What is the password?")
if username == "TBBPython101" and password == "PYTHON":
```

```
    print("Welcome TBB Python!")
elif username == "Programming" and password == "Languages":
    print("Welcome Programming Languages")
else:
    print("Cannot recognize who you are?")

#Kredi verme uygulaması

min_salary = 30000.0
min_years = 2

salary = float(input("Enter your annual salary:"))

years_on_job = int(input("Enter the number of years employed:"))

if salary >= min_salary:
    if years_on_job >= min_years:
        print("You qualified for the loan.")
    else:
        print("You must have been employed",\
              'for at least', min_years, \
              'years to qualify.')
else:
    print('You must earn at least $', \
          format(min_salary, ',.2f'), \
          'per year to qualify.')

min_salary = 30000.0
min_years = 2

salary = float(input("Enter your annual salary:"))

if salary < min_salary:
    print('You must earn at least $', \
          format(min_salary, ',.2f'), \
          'per year to qualify.')
else:
    years_on_job = float(input("Enter the number of years employed:"))
    if years_on_job < min_years:
        print("You must have been employed",\
              'for at least', min_years, \
              'years to qualify.')
    else:
        print("You qualified for the loan.")

Enter your annual salary:30001
Enter the number of years employed:2.5
You qualified for the loan.

#Üniversite Ham Puan Hesabı
```

```python
v = float(input("Enter your midterm exam result: "))
f = float(input("Enter your final exam result: "))

g = 0.4 * v + 0.6 * f

if 90 <= g <= 100:
    l = "AA"
elif 80 <= g <= 90:
    l = "BA"
elif 70 <= g <= 80:
    l = "BB"
elif 60 <= g <= 70:
    l = "CB"
elif 50 <= g <= 60:
    l = "CC"
elif 40 <= g <= 50:
    l = "DC"
elif 30 <= g <= 40:
    l = "DD"
else:
    l = "FF"

print("\nYour grade is", g, "\nYour letter grade is", l)
```

```
Enter your midterm exam result: 90
Enter your final exam result: 95

Your grade is 93.0
Your letter grade is AA
```

```python
#Denklemde kök bulma
'''
d = b**2 - 4*a*c
d < 0, no root
d = 0, 1 root
d > 0, 2 roots
'''
```

```
'\nd = b**2 - 4*a*c\nd < 0, no root\nd = 0, 1 root\nd > 0, 2 roots\n'
```

```python
a = float(input("Enter A: "))
if a == 0:
    print("\nThis is not an quadratic equation")
else:
    b = float(input("Enter B: "))
    c = float(input("Enter C: "))
    #diskriminant
    d = b**2 - 4*a*c

    #kökleri hesaplama
```

```
    if d < 0:
        print("\nNo real roots!")
    elif d == 0: #only 1 root
        print("\nOnly one real root.")
        print("The root is", -b/(2*a))
    else:
        print("\nTwo real roots.")
        r1 = (-b + d**0.5) / (2*a)
        r2 = (-b - d**0.5) / (2*a)
        print("The roots are", r1, "and", r2)
```

```
Enter A: 1
Enter B: 8
Enter C: 4

Two real roots.
The roots are -0.5358983848622456 and -7.464101615137754
```

```
#Tekrarlayan Yapılar

#sonsuz döngü
#while True:
    #print("Hello Python")

#While Döngüsü
count = 0
while (count < 9):
    print("The count is: ", count)
    count += 1 #count = count + 1
print("Goodbye!")
```

```
The count is:  0
The count is:  1
The count is:  2
The count is:  3
The count is:  4
The count is:  5
The count is:  6
The count is:  7
The count is:  8
Goodbye!
```

```
#while-else
mycount = 0
while mycount < 5:
    print(mycount, " is less than 5")
    mycount += 1 #mycount = mycount + 1
else:
    print(mycount, " is not less than 5")
```

```
0  is less than 5
1  is less than 5
2  is less than 5
3  is less than 5
4  is less than 5
5  is not less than 5
```

```
#for döngüsü
for letter in 'Python':
    print('Current Letter : ', letter)
```

```
Current Letter :  P
Current Letter :  y
Current Letter :  t
Current Letter :  h
Current Letter :  o
Current Letter :  n
```

```
fruits = ['banana', 'apple', 'mango']
for fruit in fruits:
    print("Current Fruit :", fruit)
print('Goodbye!')
```

```
Current Fruit : banana
Current Fruit : apple
Current Fruit : mango
Goodbye!
```

```
#Basit Çarpım Tablosu - iç içe for döngüsü
#for x in range(1, 11):
    #for y in range(1, 11):
        #print('%d * %d = %d' % (x, y, x * y))

#iç içe (nested) while döngüsü

x = -20
y = 20
while x <= y:
    print("X is now: ", x)
    x = x + 1
    while x < 0:
        print("X is negative")
        x = x + 1
```

```
X is now:  -20
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
```

```
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
X is negative
X is now:  0
X is now:  1
X is now:  2
X is now:  3
X is now:  4
X is now:  5
X is now:  6
X is now:  7
X is now:  8
X is now:  9
X is now:  10
X is now:  11
X is now:  12
X is now:  13
X is now:  14
X is now:  15
X is now:  16
X is now:  17
X is now:  18
X is now:  19
X is now:  20
```

```
#Satış komisyon miktarı hesaplama

keep_going = 'y'

#Komisyonu hesaplama
while keep_going == 'y':
    sales = float(input('Enter the amount of sales: '))
    comm_rate = float(input('Enter the commision rate: '))

    commision = sales * comm_rate

    #komisyonu göster
    print('The commision is $', \
         format(commision, ',.2f'))
```

```
    keep_going = input('Do you want to calculate another ' + \
                       'commision (Enter y for yes): ')
```

```
Enter the amount of sales: 387000
Enter the commision rate: 0.017
The commision is $ 6,579.00
Do you want to calculate another commision (Enter y for yes): y
Enter the amount of sales: 1467000
Enter the commision rate: 0.0034
The commision is $ 4,987.80
Do you want to calculate another commision (Enter y for yes): q
```

```
#Bir sayı serisinin toplamını bulan uygulama
mymax = 5

total = 0.0

print('This program calculates the sum of')
print(mymax, 'numbers you will enter.')

for counter in range(mymax):
    number = int(input("Enter a number: "))
    total = total + number

print('The total is: ', total)
```

```
This program calculates the sum of
5 numbers you will enter.
Enter a number: 12
Enter a number: 23
Enter a number: 34
Enter a number: 45
Enter a number: 56
The total is:  170.0
```

```
#Girilen sayıların ortalamasını hesaplama

print("When the list is finished, type 'end'.\n")

total = 0
sayac = 0
not_finished = True #flag

while not_finished:
    k = input('Enter a score: ')
    if k != "end":
        total += float(k) # total = total + k
        sayac += 1
    else:
        not_finished = False
```

```
print("\nAverage: ", total / sayac)
```

```
When the list is finished, type 'end'.

Enter a score: 456
Enter a score: 789
Enter a score: 456
Enter a score: 345
Enter a score: 123
Enter a score: 456
Enter a score: end

Average:  437.5
```

```
#Analog saat
#for hours in range(24):
    #for minutes in range(60):
        #for seconds in range(60):
            #print(hours, ':', minutes, ':', seconds)
```