

Amna Kousar [Mathematics 2nd Semester]

1

```
while.py > ...  
1 a = ["Ali", "Aliyan", "lahore", 45]  
2 while a:  
3     print(a.pop(0))  
4
```

```
Ali  
Aliyan  
lahore  
45
```

2

```
while2.py > ...  
1 n = int(input("enter a numebr : "))  
2 sum = 0  
3 i = 1  
4 while (i <= n):  
5     sum = sum + 1  
6     i = i+1  
7     print("the sum is", sum)
```

```
enter a numebr : 7  
the sum is 1  
the sum is 2  
the sum is 3  
the sum is 4  
the sum is 5  
the sum is 6  
the sum is 7
```

3

```
while3.py > ...  
1 list1 = ['Learing', 'is', 'fun', 'with', 'Dr Nimra']  
2 ctr = 0  
3 while(ctr < len(list1)):  
4     print(list1[ctr])  
5     ctr += 1  
6     print (list1)  
7
```

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```
Learing
['Learing', 'is', 'fun', 'with', 'Dr Nimra']
is
['Learing', 'is', 'fun', 'with', 'Dr Nimra']
fun
['Learing', 'is', 'fun', 'with', 'Dr Nimra']
with
['Learing', 'is', 'fun', 'with', 'Dr Nimra']
Dr Nimra
['Learing', 'is', 'fun', 'with', 'Dr Nimra']
```

4

```
while4.py > ...
1  number = int(input('Enter a number: '))
2  total = 0
3  while number != 0:
4      total += number
5      number = int(input('Enter a number: '))
6
7  print('The sum is', sum)
```

```
Enter a number: 5
Enter a number: 5
Enter a number: 6
Enter a number: 5
Enter a number: 6
```

5

```
Whlloop.py > ...
1  number = 0
2  while number < 7 :
3      print(number)
4      number = number + 1
5      print ("bye bye,")
```

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```
0
bye bye,
1
bye bye,
2
bye bye,
3
bye bye,
4
bye bye,
5
bye bye,
6
bye bye,
```

6

```
❏ nested.py > ...
1  a = [1, 2, 3, 4, 5,]
2  while (a):
3      print("Outer:", a.pop())
4      b = ['Ali', 'Amir']
5      while (b):
6          print ("\tInner: ", b.pop())
7  print("After both the loops end")
8  print("a= ", a)
9  print("a= ", b)
```

```
Outer: 5
    Inner: Amir
    Inner: Ali
Outer: 4
    Inner: Amir
    Inner: Ali
Outer: 3
    Inner: Amir
    Inner: Ali
Outer: 2
    Inner: Amir
    Inner: Ali
Outer: 1
    Inner: Amir
    Inner: Ali
After both the loops end
a= []
a= []
```

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```
nastedforloop.py > ...  
1  lsit1 = [1, 2, 3, 4]  
2  for number in lsit1:  
3      print("Outer: ", number)  
4      list2 = ['Ahmar', 'Ali']  
5      for name in list2:  
6          print("\t Inner: ", name)  
7          print("outer loops")
```

```
Outer: 1  
    Inner: Ahmar  
outer loops  
    Inner: Ali  
outer loops  
Outer: 2  
    Inner: Ahmar  
outer loops  
    Inner: Ali  
outer loops  
Outer: 3  
    Inner: Ahmar  
outer loops  
    Inner: Ali  
outer loops  
Outer: 4  
    Inner: Ahmar  
outer loops  
    Inner: Ali  
outer loops
```

8

```
nastedforloop2.py > ...  
1  days = ['Monday', 'Tuesday', 'sunday']  
2  fruits = ['apple', 'banana', 'Mango']  
3  for days in days:  
4      for fruit in fruits:  
5          print(days, fruit)
```

```
Monday apple  
Monday banana  
Monday Mango  
Tuesday apple  
Tuesday banana  
Tuesday Mango  
sunday apple  
sunday banana  
sunday Mango
```

9

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```
1 n = 0
2 while (True):
3     n = n + 1
4     if (n == 5):
5         break
6     print(n)
7     print("Outside loop")
```

```
1
Outside loop
2
Outside loop
3
Outside loop
4
Outside loop
```

10

```
1 n = 10
2 while (n > 0):
3     n = n - 1
4     if(n == 5):
5         break
6     print(n)
```

```
9
8
7
6
```

11

```
1 fruits = ["Orange", "apple", "Banana"]
2 for x in fruits:
3     if x == "Apple":
4         break
5     print(x)
```

```
Orange
apple
Banana
```

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```
1  fruits = ["Apple", "orange", "banana", "Gavva"]
2  for x in fruits:
3      if x == "Apple":
4          continue
5      print(x)
```

```
orangebanana
Gavva
```

13

```
1  n = 10
2  while n > 0:
3      n = n - 1
4      if (n == 5 or n == 7):
5          continue
6      print(n)
```

```
9
8
6
4
3
2
1
0
```

14

```
1  n = 3
2  while(n>0):
3      n = n-1
4      print(n)
5  else:
6      print("outside loop")
```

```
2
1
0
outside loop
```

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```
1 n = 5
2 while (n > 0):
3     n = n-1
4     if n == 2:
5         break
6     print (n)
7 else:
8     print("outside loop")
```

```
4
3
```

16

```
1 mylist = ['Umail', 'Abuzar', 'Ahmad']
2 for i in mylist:
3     print(i)
4     print("by byy")
```

```
Umail
by byy
Abuzar
by byy
Ahmad
by byy
```

17

```
1 for i in ("I am happy"):
2     print (i)
```

```
I
a
m

h
a
p
p
y
```

18

```
1 students = ("Abu zar", "Umail", "Ali", "Asad")
2 for student in students:
3     print(student)
```

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```
1 students = ["Abu zar", "Umain", "Ali", "Asad"]
2 for student in students:
3     print(student)
```

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```
1 word = "welcome to the Dr Nimra in my class"
2 count = 0
3 for character in word:
4     if character == 'i':
5         count = count+1
6 print(count)
```

```
0
```

20

```
1 d1 = {
2     'Name': 'Umain',
3     'Gender': 'Male',
4     'Age': 23,
5     'Height': 6.0,
6     'Occupation': 'student'
7 }
8 print("Inter through dictioanr keys:")
9 for i in d1:
10     print(i)
11 print("Another way of interationg throgh dictionary keys:")
12 for i in d1.keys():
13     print(i)
```

```
Inter through dictioanr keys:
```

```
Name
```

```
Gender
```

```
Age
```

```
Height
```

```
Occupation
```

```
Another way of interationg throgh dictionary keys:
```

```
Name
```

```
Gender
```

```
Age
```

```
Height
```

```
Occupation
```

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```
1 d1 = {  
2     'Name': 'Umair',  
3     'Gender': 'Male',  
4     'Age': 23,  
5     'Height': 6.0,  
6     'Occupation': 'student'  
7 }  
8 print("Inter through dictionar keys:")  
9 for i in d1:  
10     print(i)
```

Inter through dictionar keys:

Name
Gender
Age
Height
Occupation

22

```
d1 = {  
    'Name': 'Umair',  
    'Gender': 'Male',  
    'Age': 23,  
    'Height': 6.0,  
    'Occupation': 'student'  
}  
print("Another way of interationg throught dictionary keys:")  
for i in d1.items():  
    print(i)
```

Another way of interationg throught dictionary keys:

('Name', 'Umair')
('Gender', 'Male')
('Age', 23)
('Height', 6.0)
('Occupation', 'student')

23

```
1 print(range(10))  
2 print(list(range(10)))  
3 print(list(range(-5, 2, 1)))  
4 print(list(range(20, 2, -3)))  
5
```

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```
range(0, 10)
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
[-5, -4, -3, -2, -1, 0, 1]
[20, 17, 14, 11, 8, 5]
```

24

```
1 a = range(5)
2 for i in a:
3     print(i)
```

```
0
1
2
3
4
```

25

```
1 my_friends = ['Umair', 'Ali', 'Abuzar', 'Muhid', 'Naeem']
2 for i in range(len(my_friends)):
3     print('The value at postions {} is {}'.format(i, my_friends[i]))
4
```

```
The value at postions 0 is Umair
The value at postions 1 is Ali
The value at postions 2 is Abuzar
The value at postions 3 is Muhid
The value at postions 4 is Naeem
```

26

```
1 mylist = ['Ali', 'Abuzar', 'Umair']
2 print(list(enumerate(mylist)))
```

```
The value at postions 0 is Umair
The value at postions 1 is Ali
The value at postions 2 is Abuzar
The value at postions 3 is Muhid
The value at postions 4 is Naeem
```

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```
1 mylist = ['Ali', 'Umair', 'Abuzar']
2 print(dict(enumerate(mylist)))
```

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```
{0: 'Ali', 1: 'Umair', 2: 'Abuzar'}
```

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```
1 my_friends = ['Ali', 'Umair', 'Abuzar', 'Naseem']
2 for i, name in enumerate(my_friends):
3     print('The value at position {} is {}'.format(i, name))
```

```
The value at position 0 is Ali.
The value at position 1 is Umair.
The value at position 2 is Abuzar.
The value at position 3 is Naseem.
```

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```
1 mylist = ['Umair', 'Abuzar', 'Ahmad']
2 for i in mylist:
3     print(i)
4     print("by byy")
```

```
Umair
by byy
Abuzar
by byy
Ahmad
by byy
```

30

```
1 n = 0
2 while (True):
3     n = n + 1
4     if (n == 5):
5         break
6     print(n)
7     print("Outside loop")
```

```
1
Outside loop
2
Outside loop
3
Outside loop
4
Outside loop
```

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