jupyter day-4 (autosaved)

Logout

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Run Markdown

PRODDEC PYTHON DAY 4

Global variable and Local variable

In [13]:
```
num1=125
print(num1) # Printing global variable.

def sayHello():
    num1=500
    print(num1)  # Printing local variable.
    print("Hello")

sayHello()
print(num1)  # This will print the global variable.
```

```
125
500
Hello
125
```

Global keyword

In [1]:
```
# Used to declare a global variable in the the function definition.
num1=125
print(num1) # Printing global variable.

def sayHello():
    global num1
    num1=500
    print(num1)  # Printing global variable.
    print("Hello")

sayHello()
print(num1)  # This will print the global variable.
```

```
125
500
Hello
500
```

Recursion

In [22]:
```
# Calling a function from itself is called recursion.
```

Example 1

In [2]:
```
# For printing hello 10 times.
count=1
def callMe():
    global count
    print("Hello",count)
    count=+1
    if count<10:
        print("Session ended.")
    else:
        callMe()
callMe()
```

```
Hello 1
Hello 2
Hello 3
Hello 4
Hello 5
Hello 6
Hello 7
Hello 8
Hello 9
Hello 10
Session ended.
```

Example 2

In [3]:
```
# Calling a function from itself -recursion
# For printing the hello 10 times.
# Using function argument.
def callMe(count):
    print("Hello",count)
    if count<9:
        print("Session ended.")
    else:
        callMe(count+1)
callMe(1)
```

```
Hello 1
Hello 2
Hello 3
Hello 4
Hello 5
Hello 6
Hello 7
Hello 8
Hello 9
Hello 10
Session ended.
```

Loops

In [ ]:
```
"""
A loop statement allows us to execute a statement or
group of statements multiple times.
"""
```

while loop

In [ ]:
```
# While loop execute code, until condition is False.
# Print hello this at home.
# Print hello for ever.
while True:
    print("hello")
```

In [4]:
```
# Print upto 10
counter=1
while counter<=10:
    print(counter)
    counter+=1
```

```
1
2
3
4
5
6
7
8
9
10
```

In [5]:
```
# Print hello 10 times.
counter=1
while counter<=10:
    print("hello",counter)
    counter+=1
```

```
Hello 1
Hello 2
Hello 3
Hello 4
Hello 5
Hello 6
Hello 7
Hello 8
Hello 9
Hello 10
```

In [6]:
```
# Printing all items in a list.
cars=["ferrari","bmw","fiat","honda","jaguar","ambassador"]

counter=0
while counter<len(cars):
    print(cars[counter])
    counter+=1
```

```
ferrari
bmw
fiat
honda
jaguar
ambassador
```

In [33]:
```
# Five times getting input from the user
counter=1
namelist=[]          # Creating an empty list
while counter<=5:
    name=input("Enter your name: ")
    namelist.append(name)
    counter+=1

print(namelist)     # Printing the stored list.
```

```
Enter your name: peter
Enter your name: david
Enter your name: james
Enter your name: ram
Enter your name: hari
['peter', 'david', 'james', 'ram', 'hari']
```

Break statement in loops

In [34]:
```
# break allows to stop the loop execution.
# Code for original password guessing system.
originalPassword="killyou".
while True:
    userPassword=input("Enter your password: ")
    print(userPassword)
    if userPassword==originalPassword:
        print("Access Granted!!")
        break    # Exiting the while loop.
```

```
Enter your password: hello me
hello me
Enter your password: password
password
Enter your password: 12345678
12345678
Enter your password: peterdavidson
peterdavidson
Enter your password: killyou
killyou
Access Granted!!
```

Continue statement in Loops

In [7]:
```
# continue keyword help to restart the loop again.
# Printing all odd numbers upto 20
counter=1
while counter<=20:
    counter+=1
    if counter%2==0:
        continue
    print(counter)
```

```
1
3
5
7
9
11
13
15
17
19
```

for loop

In [40]:
```
# for loop help to run a block of code, particular number of times.
for i in range(10):
    print("Hello",i)
```

```
Hello 0
Hello 1
Hello 2
Hello 3
Hello 4
Hello 5
Hello 6
Hello 7
Hello 8
Hello 9
```

In [43]:
```
# Printing a range of numbers
for i in range(10,20):
    print("Hello",i)
```

```
Hello 10
Hello 11
Hello 12
Hello 13
Hello 14
Hello 15
Hello 16
Hello 17
Hello 18
Hello 19
```

In [8]:
```
# Printing the even numbers upto 20
for i in range(2,21,2):
    print(i)
```

```
2
4
6
8
10
12
14
16
18
20
```

In [9]:
```
# Printing the multiples of 3 upto 40
for i in range(3,41,3):
    print(i)
```

```
3
6
9
12
15
18
21
24
27
30
33
36
39
```

Printing all items in a list.

In [50]:
```
# Method 1
cars=["ferrari","bmw","fiat","honda","jaguar","ambassador"]
for i in cars:
    print(i)
```

```
ferrari
bmw
fiat
honda
jaguar
ambassador
```

In [51]:
```
# Method 2
cars=["ferrari","bmw","fiat","honda","jaguar","ambassador"]
for i in range(len(cars)):
    print(cars[i])
```

```
ferrari
bmw
fiat
honda
jaguar
ambassador
```

In [42]:
```
# Printing all the character in a string.
animal="giraffe"
for i in animal:
    print(i)
```

```
g
i
r
a
f
f
e
```

Break in for loops

In [49]:
```
# Printing upto 5
for i in range(20):
    print(i)
    if i==5:
        break
```

```
0
1
2
3
4
5
```

Continue in for loops

In [10]:
```
# Skipping 5 in the a range of numbers.
for i in range(11):
    if i==5:
        continue
    print(i)
```

```
0
1
2
3
4
6
7
8
9
10
```

In [ ]: