LOOPS IN PYTHON:

WHILE LOOP:

```
# While loop
count = 0
while (count<3):
    count = count + 1
    print("Hello Baby")
```

OUTPUT: Hello Baby
Hello Baby
Hello Baby

SINGLE STATEMENT WHILE LOOP:

```
# Single statement While loop
count = 0
while (count==0): print("Hello Baby")
```

OUTPUT: Hello Baby
Hello Baby
Hello Baby
Hello Baby
Hello Baby
Hello Baby
Hello Baby
Hello Baby
……
……

FOR LOOP:

```
# For in loop
# Iterating over lists
print("List Iteration")
l = ["You", "are", "cute"]
for i in l:
    print (i)
```

OUTPUT: List Iteration
You
are
cute

ITERATING OVER TUPLE IMMUTUABLE:

```
# Iterating over tuple immutable
print("\nTuple Iteration")
t = ("You", "are", "cute")
for i in t:
    print (i)
```

OUTPUT: Tuple Iteration
You
are
cute

ITERATING OVER STRINGS:

```
# Iterating over Strings
print("\nString Iteration")
r = "Baby"
for i in r:
    print (i)
```

OUTPUT: B
a
b
y

PYTHON PROGRAM TO ILLUSTRATE:

```
# Python program to illustrate
# Iterating by index
list = ["Baby", "for", "reason"]
for index in range (len(list)):
    print (list[index])
```

OUTPUT: Baby
for
reason

PRINTS ALL LETTERS EXCEPT:

```
# Prints all letters except 'b' and 'a'
for letter in 'babyforareason':
    if letter == 'b' or letter == 'a':
        continue
    print('Time of occurrence'), letter
    var = 10
```

OUTPUT: Time of occurrence
Time of occurrence
Time of occurrence
Time of occurrence
Time of occurrence
Time of occurrence
Time of occurrence
Time of occurrence
Time of occurrence

BREAK AFTER SEEING:

```
# Break after seeing letter 'y' or r'
for letter in 'babyforareason':
    if letter == 'y' or letter == 'r':
        break
    print('Time of occurrence'), letter
```

OUTPUT: Time of occurrence
Time of occurrence
Time of occurrence

FUNCTIONS IN PYTHON:

```
# Functions in python
def my_function():
    print("Hello from a function")
my_function()
```

OUTPUT: Hello from a function

FUNCTIONS WITH PARAMETERS:

```
# Functions with parameters in python
def my_function(fname):
    print(fname + " ice-cream")
my_function("Mango")
my_function("Chocolate")
my_function("Strawberry")
```

OUTPUT: Mango ice-cream
Chocolate ice-cream
Strawberry ice-cream

DEFAULT PARAMETER:

```
# Default parameter value in python
def my_function(country = "Norway"):
    print("I am from " + country)
my_function("Pakistan")
my_function("Turkey")
my_function()
my_function("Indonesia")
```

OUTPUT: I am from Pakistan
I am from Turkey
I am from Norway
I am from Indonesia

LIST AS A PARAMETER:

```
# Passing a List as a Parameter in python
def my_function(food):
    for x in food:
        print(x)
fruits = ["apple", "banana", "cherry"]
my_function(fruits)
```

OUTPUT: apple
banana
cherry

RETURN VALUES:

```
# Parameters returning values in python
def my_function(x):
    return 5 * x
print(my_function(3))
print(my_function(5))
print(my_function(9))
```

OUTPUT: 15
25
45

KEYWORDS AS ARGUMENTS:

```
# Keywords as Arguments in python
def my_function(child3, child2, child1):
    print("The youngest child is " + child3)
my_function(child1 = "rimi", child2 = "mimi", child3 = "fifi")
```

OUTPUT: The youngest child is fifi

CLASSES:

```
# Classes in python
class MyClass: x = 4
p1 = MyClass()
print(p1.x)
```

OUTPUT: 4

__INIT__() FUNCTION:

```
# The __init__() Function in python
class Person:
    def __init__(self, name, age):
        self.name = name
        self.age = age

p1 = Person("Bushra", 76)
print(p1.name)
print(p1.age)
```

OUTPUT: Bushra
76

__INIT__() FUNCTION:

```
# The __init__() Function in python
class Person:
    def __init__(self, name, age):
        self.name = name
        self.age = age

    def myfunc(self):
        print("Hello my name is " + self.name)

p1 = Person("Sakeena", 36)
p1.myfunc()
```

OUTPUT: Hello my name is Sakeena
