AC Patil
College *of* Engineering

Jawahar Education Society's
A. C. Patil College of Engineering, Kharghar
Navi Mumbai 410210

Student Name:

Course Name: C.S.E. (IoT CS BC)

Year: S.E.

Roll No.:

PRN No.: 2211110

Course code: CSL405

Semester: IV

Experiment Evaluation Sheet

Experiment No.: 1

Experiment Name:
To implement basic concepts in Python

Sr No.	Evaluation Criteria	Marks (Out of 9)	Performance Date	Correction Date and Signature of Instructor
1	Experiment Performance			
2	Journal Performance			
3	Punctuality			
Total				

Aim : To implement basic concepts in Python like i/o, control statements.

Software required : Python

Theory :

Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms.

1) Input() :-
If the prompt argument is present, it is written to standard output without a trailing newline. The function then reads a line from input, converts it to a string (stripping a trailing newline), and returns that. This function by default gives output in string

2) print(*objects, sep=' ', end='\n', file=None, flush=False) :-
Print objects to the text stream file, separated by sep and followed by end. sep, end, file, and flush, if present, must be given as keyword arguments.

3) for Statemenrts:-
The for statement in Python differs a bit from what you may be used to in C or Pascal. Rather than always iterating over an arithmetic progression of numbers (like in Pascal), or giving the user the ability to define both the iteration step and halting condition (as C), Python's for statement iterates over the items of any sequence (a list or a string), in the order that they appear in the sequence..

4) list:-
Python knows a number of compound data types, used to group together other values. The most versatile is the list, which can be written as a list of comma-separated values (items) between square brackets. Lists might contain items of different types, but usually the items all have the same type.
List has functions like append, extend, insert, remove, pop, clear, index, sort, reverse etc

5) tuples:-
Tuples are immutable sequences, typically used to store collections of heterogeneous data (such as the 2-tuples produced by the enumerate() built-in). Tuples are also used for cases where an immutable sequence of homogeneous data is needed (such as allowing storage in a set or dict instance).

Code 1.a :

```
num1 = int(input("Enter first number :- "))
num2 = int(input("Enter second number :- "))

sum = num1 + num2

print("Sum :", sum)
```

Output 1.a :

```
H:\PythonLab\01Practical>python input.py
Enter first number :- 25
Enter second number :- 69
Sum : 94
```

Code 1.b :

```
numbers = (1, 2, 3, 4, 5, 6, 7, 8, 9)

sum = 0

for number in numbers:
    sum += number

print("Sum of all numbers is ", sum)
```

Output 1.b :

```
H:\PythonLab\01Practical>python loopSum.py
Sum of all numbers is  45
```

Code 1.C :

```
print("\nBefore Swap:-")
a, b = 2, 3
print("a = ", a, ", b = ", b)

print("\nAfter Swap:-")
a, b = b, a
print("a = ", a, ", b = ", b)
```

Output 1.C :

```
H:\PythonLab\01Practical>python swap.py

Before Swap:-
a =  2 , b =  3

After Swap:-
a =  3 , b =  2
```

Conclusion :

With this programs we learn how to implement basic data types, operators, i/o, control statements in Python.