EXPERIMENT 1

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B/B1

* Aim

Write a Python program to swap two numbers and check if the first number is positive or negative or zero.

* Theory

Python is an interpreted, high-level and general purpose programming language. Python syntax are simple and easy to use.

The print() function prints the specified message to the screen. The message can be string or any other object.
Example print("Hello") output will be Hello.
input() function is used to take inputs from the user.

There are various data types in python. int, float and complex are data types for numbers. type() function is used to know which class a variable or value belongs to. list is some of the other data types are list, tuple, string, range, boolean

Variables are containers for storing data values. In python we do not need to specify the variables type.

+, -, *, /, % are arithmetic operator.
Python also has floor division (//) operator

==, >=, <=, >, <, != are comparison
operators

and, or, not are logical operator in
~~pyth~~ python.

- if - else conditional statement
  Syntax:

```
if < conditional expression >:
        statements
else :
      statements
```

- if - elif conditional statement
  syntax

```
if < conditional expression >:
      statements
elif < conditional expression >:
      statements
else:
      statement
```

In python ~~instead~~ instead of curly braces
white space is used.

* Conclusion

We learnt

We learnt about different data types in python, taking inputs from user, declaring variables in python. We also learnt different operators and using comparison operators. Implementing if-elif conditional statement.

Program:

```
temp.py      exp2.py      exp1.py

1 # -*- coding: utf-8 -*-
2 """
3 Created on Mon Mar 15 15:05:42 2021
4
5 @author: sai
6 """
7
8 a = int(input("enter first number "))
9 b = int(input("enter second number "))
10 print("before swapping ")
11 print("a = ",a)
12 print("b = ",b)
13 temp=a
14 a=b
15 b=temp
16 print("after swapping")
17 print("a = ",a)
18 print("b = ",b)
19 if a > 0:
20     print("first number is positive")
21 elif a<0:
22     print("first number is negative")
23 else:
24     print("zero")
```

Output:

```
Console 1/A ✕

Documents/Python Scripts')

enter first number 4

enter second number 3
before swapping
a =  4
b =  3
after swapping
a =  3
b =  4
first number is positive
```