

Python Exercises – For and While Loop

DESCRIPTION: Homework assessments students' knowledge in creating a Python program to create and manipulate for and while loop.

STEPS:

1. Open a new file and save it as: *python_postgresql.py*
2. In the file, type the first two lines with comments as:

```
"""  
    Python and Postgresql Exercises  
    Student's Name:  
    """
```

3. Complete activity a and b

a) (10 points) Write a python program that will collect items from the user and save them into a list. The program starts asking the user for the number of items, uses a for loop to collect each item, and print the results of the for loop, list. *Hint: use method **append()** to add the items to the list*

Template

```
----- ACTIVITY 3a -----  
Enter the number of fruits:
```

presses Enter...

When runs the python file, it prompts a message asking the user to enter the number of elements. For example, if user types 3 and

```
----- ACTIVITY 3a -----  
Enter the number of fruits: 3  
Fruit 1:
```

the program asks the user to enter a value of the first item...

```
----- ACTIVITY 3a -----  
Enter the number of fruits: 3  
Fruit 1: apple  
Fruit 2:
```

for example, if the user types and enters *apple*, the program asks the user to enter a value of the second item...

```
----- ACTIVITY 3a -----  
Enter the number of fruits: 3  
Fruit 1: apple  
Fruit 2: pear  
Fruit 3:
```

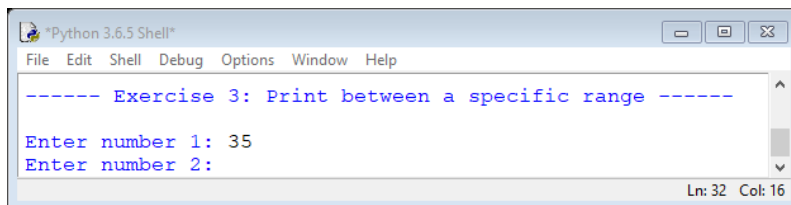
```

----- ACTIVITY 3a -----
Enter the number of fruits: 3
Fruit 1: apple
Fruit 2: pear
Fruit 3: orange
User created a list of 3 items and entered the values: ['apple', 'pear', 'orange']

```

Activity b) (10 points) Write a Python program that uses while loop to print all the numbers (between two numbers exclusive). The two numbers are entered by the user. The program should print from the smaller number of the two entered numbers, and with an increment of 1 up to the higher number.

Template



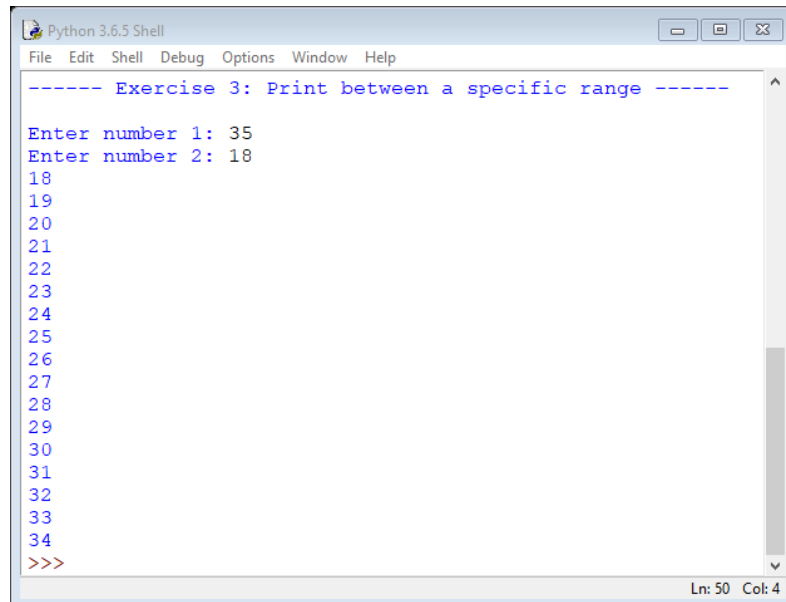
```

Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
----- Exercise 3: Print between a specific range -----
Enter number 1: 35
Enter number 2:
Ln: 32 Col: 16

```

When run the program, it asks the user to enter a number.

For example, if user types 35 and presses Enter...



```

Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
----- Exercise 3: Print between a specific range -----
Enter number 1: 35
Enter number 2: 18
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
>>>
Ln: 50 Col: 4

```

... the program will ask for the second number. For example, if user types 18 and presses Enter...

The program will print from the smaller number and print up to the greater number with an increment.

Checkpoint: If the user enters the same number, the program should ask the user to enter another number for the last number, which is the second number. Once the two numbers are different, the program will print from the smaller to the higher number with an increment of 1.