Python Belt - Activity Two Variables

In computer programming, a very important basic concept is variables. A variable is just like a cup that you fill something with. So the first step is you have to create it, of course. In Python, you can simply create a variable by giving it a value. This means you just have to fill a cup with something. The code to do that are the following examples:

```
# We are setting (filling) the variable a with the number 3
>> a = 3

# We are setting (filling) the variable b with the number 10
>> b = 10

# We are setting (filling) the variable myName with some words
>> myName = “John Smith”
```

Note you can name your variables anything, except the names cannot have spaces in them.

Now that you have variables created, you can use the variables! Whenever you use the variables, the computer will only see what’s inside them. If we use the variable “a”, the computer will see it as the number 3!

Exercise #1

1. Go to https://replit.com/@CodeNinjas16/pythonActivity2.
2. Make sure you “Fork” the file to create your own copy for coding exercises. 3. Create a new variable called “greeting” and set (fill) it with “How are you?” : >> greeting = “How are you?”
4. Now let’s use the variable **greeting** and see how what happens. Let’s use it with the print() function. **What do you see?**

```
>> print( greeting )
```

Exercise #2

Variables can be filled with something at the start, but in the middle of the your program, the variable can change values. Things that the cup holds can change! Let's take a look at the following code.

1. In the same Activity2 source file, set greeting to a different phrase like "Very good". >>
   greeting = "Very good"

2. Then print greeting again. **What do you see?**
   >> print (greeting)

Exploring Activities

Continue creating new variables and printing them. Ask your Sensei any questions you have.

Challenge

Using one variable to represent each line of the output, print the following pattern of asterisks. So, the first line, we can create a variable called line1 and set it to "*". >> line1 = "*"

>> print(line1)

What are the rest of the variables and code be? When you are finished, you should have 5 variables created and 5 print() function calls to each variable and the console will print the following:

```
*
* *
* * *
* * * *
* * * * *
```