edX

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Exercise: vara varb

Finger Exercises due Aug 5, 2020 20:30 -03   *Completo*

Exercise: vara varb

5.0/5.0 points (graded)
ESTIMATED TIME TO COMPLETE: 5 minutes

Assume that two variables, `varA` and `varB`, are assigned values, either numbers or strings.

Write a piece of Python code that evaluates `varA` and `varB`, and then prints out one of the following messages:

- `"string involved"` if either `varA` or `varB` are strings

- `"bigger"` if `varA` is larger than `varB`

- `"equal"` if `varA` is equal to `varB`

- `"smaller"` if `varA` is smaller than `varB`

Do not ask for user input

Assume that variables are defined for you by our grader code. Simply write code assuming you know the values of the variables.

```
1  if type(varA) == str or type(varB) == str:
2      print('string involved')
3  elif type(varA) == type(varB):
4      if varA > varB:
5          print('bigger')
```

```
6    elif varA == varB:
7        print('equal')
8    else:
9        print('smaller')
```

Press ESC then TAB or click outside of the code editor to exit

Correta

```
if type(varA) == str or type(varB) == str:
    print('string involved')
elif varA > varB:
    print('bigger')
elif varA == varB:
    print('equal')
else:
    # If none of the above conditions are true,
    # it must be the case that varA < varB
    print('smaller')
```

Test results

Hide output

CORRECT

Test Values: varA = 0, varB = goodbye

Output:

```
string involved
```

Test Values: varA = bonjour, varB = goodbye

Output:

```
string involved
```

Test Values: varA = 2, varB = -8

Output:

```
bigger
```

Test Values: varA = -8, varB = -2

Output:

```
smaller
```

Test Values: varA = -3, varB = 3

Output:

```
smaller
```

Test Values: varA = -1, varB = 4

Output:

```
smaller
```

Test Values: varA = hola, varB = goodbye

Output:

```
string involved
```

Test Values: varA = -9, varB = adios

Output:

```
string involved
```

Test Values: varA = hello, varB = hello

Output:

```
string involved
```

Test Values: varA = hello, varB = hello

Output:

```
string involved
```

Test Values: varA = 1, varB = 6

Output:

```
smaller
```

Test Values: varA = -7, varB = 7

Output:

```
smaller
```

Test Values: varA = -9, varB = -9

Output:

```
equal
```

Test Values: varA = 8, varB = -5

Output:

```
bigger
```

Test Values: varA = 1, varB = adieu

Output:

```
string involved
```

Test Values: varA = -8, varB = -1

Output:

```
smaller
```

Test Values: varA = 8, varB = -6

Output:

```
bigger
```

Test Values: varA = 2, varB = -1

Output:

```
bigger
```

Test Values: varA = -10, varB = -2

Output:

```
smaller
```

Test Values: varA = -9, varB = 7

Output:

```
smaller
```

Hide output

Explanation

Is `type(varA) == str or type(varB) == str` equivalent to `type(varA) or type(varB) == str` ? Those are not equivalent because of <u>Python precedence</u> (some operations have higher precedence than others). The `==` has higher precedence than the `or` so it will get evaluated first. Therefore:

`type(varA) or type(varB) == str`

Will evaluate to the following, if we explicitly put parentheses:

`type(varA) or ( type(varB) == str )`

`True or ( type(varB) == str )`

`( True )`

Because "anything" or "True" will just take the value of "True" (by boolean algebra).
And the other expression:

```
type(varA) == str or type(varB) == str
```
Will evaluate to the following, if we explicitly put parentheses:
```
( type(varA) == str ) or ( type(varB) == str )
```
So you will have to check each of the expressions in the parentheses to see whether they are true or not to determine the final result. So these two are not equal.

Hint: Remember the `type` function?

Hint: Recall that if you want to check whether the type of a variable is a specific kind, you can compare the type of the variable to the type of a known object.

Enviar

🛈   Answers are displayed within the problem

Exercise: vara varb

Ocultar discussão

Topic: Lecture 2 / Exercise: vara varb

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💬 **String being greater or less**
What does it really mean to a string to be greater than, less than or equal to another?
5

❓ **Spyder v input into assignment**
Why does the correct answer for this exercise not work when it is on Spyder? In addition, why do…
1

💬 **Assignment Clarity**
I had a little trouble with this assignment, because the comparisons and not explicit. On my first a…
1

☑ **Grader marks correct code as incorrect**
My code is marked incorrect falsely. It shows your output and correct output but they both are sa…
3

💬 **That 5 minutes which turn into 2 hours**
Hi, guys! I just want to share with you my happiness. It took me almost two hours, but finally, I've …
4

💬 **elif syntax**
I have read somewhere that syntax for elif is elif() : but I have written directly as elif varA > varB : …
3

💬 **There is a problem in website compiler**
varA = -4 varB = 78 temp = type(-1) if type(varA) == type('') or type(varB) == type(''): print('string inv…
2

☑ **HELP!!Not sure what was wrong on my codes, i cannot get it corrected**
here is my code: if (type(varA) == str) or (type(varB) == str): print('string invloved') elif varA > varB: …
3

💬 **Please explain these nuances**   ✏

Hello, I noticed that if (type(varA)==str) or (type(varB)==str) is deemed NOT the same as if type (va...   3

? Help, using and operator instead of or

if type(varA) == int and type(varB)== int: elif varA>varB: print('bigger') elif varA<varB: print("smalle...   2

💬 what am i missing? Please help

below is my code. varA = -5 varB = 6 if (type(varA)==str) or (type(varB)==str): print("string involved"...   4

💬 Great exercise

Took me a good while to ponder about this problem. Stayed stuck but the hints and tips really hel...   1

? Help! Unknown error =(

This syntax error pop up.How do I resolve this error and what changes should I make? Test Value...   2