

CPSC 1301, Computer Science I Quiz

Quiz 4a

This is a timed test. You have thirty minutes to complete the test. Your deliverable will be a plain text file, that is, an ASCII file with a `.txt` file extension. When you finish the test, upload your deliverable to Canvas. Do not publish your answer to your `git` repository.

Write a script file. Follow the following instructions. Your deliverable consists of your code and the output, together in one text document.

1. Create a list of the integers 1 through 5. You create a list using square brackets (`[]`) and comma seperated values.
2. Assign the list you created to a variable named `listvar`.
3. Print `listvar`.
4. Compute the length of `listvar` using the `len()` function.
5. Assign the length you created to a variable named `listlen`.
6. Print `listlen`.
7. Create a range of list indices using `range(listlen)`.
8. Assign the range to a variable named `listrange`.
9. Print `listrange`.
10. Using `for i in listrange: ...`, print the list indices.
11. Using `for i in listrange: ...`, print the list values.
12. Using `for i in listrange: ...`, print the list indices *backwards*.¹
13. Using `for i in listrange: ...`, print the list values *backwards*.

This may help get you started.

```
1 mylist = ['a','b','c','d','e']
2 for e in range(len(mylist)):
3     print(mylist[e])
```

This prints:

a
b
c
d
e

¹If you think about it, you will realize that the arithmetic expression `listlength - index` will do what you want. In other words, we have this, given `listlen = 5`:

- `5 - 1 - 0 = 4`
- `5 - 1 - 1 = 3`
- `5 - 1 - 2 = 2`
- `5 - 1 - 3 = 1`
- `5 - 1 - 4 = 0`