Review for Strings and Lists Test

* Give an example of how to access different characters of a string

■ str1 = ‘Hello’

* 1. the first character **str1 [0]**

○ the last character **str1 [­1]**

○ every character in the string **str1 [0] str1 [1] str1 [2] str1 [3] str1 [4]**

* Write code to add these items to a list: 1/ ‘Goodbye friend’ / 5.6 / 2 / ‘The Big Top’ **alist = [ ] alist.append(1)**

**alist.append(‘Goodbye friend’) alist.append(5.6) alist.append(2)**

**alist.append(‘The Big Top’)**

* Give an example of a string literal that has multiple lines **str1 = “”” a line**

**line 2”””**

* Write code to print all the items listed (with no list syntax): lst1 = [ [‘a’, ‘b’, ‘c’], [‘d’, ‘e’, ‘f’], [‘g’, ‘h’, ‘i’]]

**for i in range (len(lst1)): for char in lst1[i]: print (char, end = ‘ ‘)**

* Answer these questions on Mutable/Immutable:
  1. Define mutable: ​**Something that can be changed**

○ **Lists**​ (Lists/Strings) are mutable

○ Write a snippet of Python code to change a value in a mutable sequence\* **alist = [‘1’, ‘b’]**

**alist [0] = ‘a’**

○ Define immutable: ​**Something that cannot be changed**

○ **Strings** ​(Lists/Strings) are immutable

○ Write a snippet of Python code to change the value of an immutable sequence\* **str1 = ‘Hello’**

**str1 = str1 [:3] + ‘b’ + str1 [4:]**

\*a sequence is an ordered set of data. Lists and strings are sequences.

* Write code to 1) prompt the user for her/his first name 2) the last name 3) print a user id made of the first 7 letters of the first name + the first initial of the last name.

*\*Assumption first name is 7+ letters* **first = input (‘Please enter your first name:’) last = input (‘Please enter your last name:’)**

**userid = first [:7] + last [0]**

**print (‘Your user id is’, userid)**

* What method breaks a string into a list? What method does the opposite? **str1.split()**

**alist.join()**

* What will appear in the Python Shell after this code is run (be exact)? Explain what .split() does

myString = “My goodness, look how tall you’ve grown” result = myString.split()

print(result)

**['My', 'goodness,', 'look', 'how', 'tall', 'you’ve', 'grown']**

* What method adds an item to a list? **alist.append()**

* How can a Python list get longer (have more items)? **By adding items.**

* Why is this code causing a syntax error? Re­write it to accomplish the task (replace the second ‘e’ in the string with an ‘w’). s = ‘Help the rainforest’

s[7] = ‘w’

**Strings are immutable. You must use concatenation. s = s [:7] + ‘w’ + s[8:]**

* i) s = ‘Help the rainforest’ ii)x = s[5]

True or ​**False**​: Line ii is an example of slicing. If false, what is it an example of? **Indexing**

* Answer these questions on string methods

* 1. What do the method s.find(sub) return (assume s is a string and sub is a substring of s)? Example: s = ‘Hello World’ x = s.find(‘ll’)

**Index of the first letter found.**

○ What does s.first(sub) return? s.substring(sub)? **An error.**

* Write code to slice str1 at the blank space into str2 and str3 (there should be 2 lines of code)

str1 = ‘Monty Python’ **str2 = str1 [:5] str3 = str1 [6:]**

* Write code to swap value ‘z’ with value ‘c’ (I expect you to use another variable and indexing to answer this):

lst1 = [‘b’, ‘z’, ‘c’]

**replacestr = ‘c’**

**lst1 [1] = replacestr**

* Write a code snippet to change the output to ‘HI!’ s1 = ‘hi!’

**s1 = s1.upper()** print(s1)