COMP 141

Lists IV

Rhodes College

Announcements

Reminder
- Program 8 - due Sunday, November 17th

Parallel Lists

Parallel lists are two or more lists of the same length, where there is a relationship between list1[p] and list2[p] (for any index/position p.)

	0	1	2
list1 =	"hello"	"my"	"friend"
list2 =	"ahoy"	"me"	"matey"

Using Parallel Lists

```
students = []
grades = []
keep_going = 'Y'

while(keep_going == 'Y'):
    student = input("Enter student's name: ")
    grade = input("Enter the student's grade: ")
    students.append(student)
    grades.append(grade)
    keep_going = input("Would you like to enter another student/grade? (Y or N) "

print(students)
print(grades)
```

```
Enter student's name: Mary
Enter the student's grade: 99
Would you like to enter another student/grade? (Y or N)Y
Enter student's name: Dave
Enter the student's grade: 78
Would you like to enter another student/grade? (Y or N)Y
Enter student's name: Kate
Enter the student's grade: 86
Would you like to enter another student/grade? (Y or N)Y
Enter student's name: Todd
Enter the student's grade: 92
Would you like to enter another student/grade? (Y or N)N
['Mary', 'Dave', 'Kate', 'Todd']
['99', '78', '86', '92']
```

Using Parallel Lists with Files

```
def main():
    infile = open("songs.txt", 'r')

    titles = []
    artists = []
    prev = []
    num_weeks = []

    for line in infile:
        line = line.rstrip()
        title, artist, prev_pos, weeks = line.split(';')
        titles.append(title)
        artists.append(artist)
        prev.append(int(prev_pos))
        num_weeks.append(int(weeks))


    longest = max(num_weeks)
    indLongest = num_weeks.index(longest)

    print("Artist: ", artists[indLongest], "\nTitle: ", titles[indLongest])

    print(artists)
    prev = artists[0]
    for i in range(1, len(artists)):
        current = artists[i]
        if prev == current:
            print(current)
        prev = current
main()
```
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Talk Like a Pirate Lab

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