Summer 2017
MIS 6V99 – Special Topics – Programming for Data Science
Programming Lab #1
Kevin R. Crook

GitHub Repository ("repo")

All names are case sensitive and must be spelled exactly as written.

Last week, students should have already created a GitHub repository called **mis_6v99_2017_summer** as a private repository and granted access to the instructor account **kevin-crook-ucb**. Students should have already created a directory for assignment_01 with a check in of create_flight_schedule.py in that directory.

In the same repository, create a file **utd_name.txt** in the root directory of the repository containing 1 line with the last name and first name separated by commas (matching your UTD name on file in Galaxy)
example:
Smith,John

Create a directory in the repository called **lab_01** and check in the **print_flight_schedule.py** file in that directory. Student must check in code during the allotted time during class.

Design a Data Structure to Hold a Flight Schedule

The format below is a list of lists. Each nested list is a flight leg as specified in assignment 1:

```
flight_schedule = [['T1','AUS','DAL','0600','0650'],
                   ['T2','DAL','HOU','0600','0705'],
                   ['T3','DAL','HOU','0600','0705']]
```

Add additional legs for T4 to fly from HOU to AUS, and T5 and T6 to fly from HOU to DAL. All of them should depart at 0600 and fly for exactly the flight times given in assignment 1.

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Print the Flight Schedule to a File

Use the following code to print the flight_schedule to a file flight_schedule.csv

```
csv_header = 'tail_number,origin,destination,departure_time,arrival_time'
file_name = 'flight_schedule.csv'

def print_flight_schedule(fn, csv_hdr, flt_sched):
    with open(fn,'wt') as f:
        print(csv_hdr, file=f)
        for s in flt_sched:
            print(','.join(s), file=f)

# add the flights for T4, T5 and T6 to the list of lists below
flight_schedule = [['T1','AUS','DAL','0600','0650'],
                   ['T2','DAL','HOU','0600','0705'],
                   ['T3','DAL','HOU','0600','0705']]


print_flight_schedule(file_name, csv_header, flight_schedule)
```

Grading Rubrics

Basic Criteria	Points
GitHub private repository was created correctly, instructor's account was given permissions, All directory & all files created correctly with exact names given, program runs without abend creating the specified output file, only the output file given by the instructor's run can be consider for further points	5
flight_schedule.csv contains the correct schedule as specified above including correct arrival times	5

Timing of Submission for Rank Grading

Since this is the first programming lab, the submission time will not be considered in the tie breaker for rank grading. However, it must be completed during class time. The instructor will ask if everyone is finished. If no one present needs additional time, the submissions will be closed.