CMPE 230 Systems Programming
Homework 2 (due April 28th)
(This project can be implemented in groups of at most 2 students)

In this project, you will develop a Python program called **bucourses.py** that will crawl Bogazici University's OBIKAS registration pages and extract course offering information. In the OBIKAS General Services => Schedule menu given at http://registration.boun.edu.tr/, one is able to list the course offerings of the programs/departments since the 1998/1999-1 (1998 fall) semester. For example, the link for the 1998 fall semester CMPE courses is given as follows:

https://registration.boun.edu.tr/scripts/sch.asp?donem=1998/1999-1&kisaadi=CMPE&bolum=COMPUTER+ENGINEERING

By changing the semester and department fields, you can access course offering information for different semesters and departments. Your Python program should crawl course offerings of all departments/programs for all semesters given in a range and output the information given in the next page in CSV table format.

References for additional information:

- CSV table format is described in https://en.wikipedia.org/wiki/Comma-separated_values .
- HTML table format is described in https://www.w3schools.com/html/html_tables.asp .

Documentation (written document describing how you implemented your project)	12%
Comments in your code	8%
Implementation and tests	80%

Late Submission
    If the project is submitted late, the following penalties will be applied:
- 0 < hours late <= 24 :   25%
- 24 < hours late <= 48 :   50%
- hours late > 48 :   100%

Timestamping
Project file should include your names in it. Please timestamp your project file using https://opentimestamps.org/ before you submit it. Keep the project file and its corresponding timestamp .ots file.

Example:

```
> ./bucourses.py  2018-Fall 2019-Spring
```

Dept./Prog. (name)	Course Code	Course Name	2018-Fall	2019-Spring	Total Offerings
...					
...					
ELKT (Electrical Eng.)	U4 G2		U3 G2 I4	U2 G2 I3	U5 G4 I5
	ELKT112	coursename		x	1 / 1
	ELKT213	coursename	x	x	2 / 1
	ELKT316	coursename	x		1 / 1
	ELKT451	coursename	x		1 / 1
	ELKT513	coursename	x	x	2 / 2
	ELKT618	coursename	x	x	2 / 1
....					
....					
KMPE (Computer Eng.)	U3 G2		U2 G4 I4	U2 G2 I3	U4 G3 I4
	KMPE150	coursename	x	x	2 / 2
	KMPE230	coursename		x	1 / 1
	KMPE423	coursename	x		1 / 1
	KMPE512	coursename	x	x	2 / 1
	KMPE530	coursename	x		1 / 1
...					
...					

Some notes:
- The programs/departments and the courses should be output in sorted order.
- The notation # / # means the left number # is the number of semesters offered and the right number # is the number of distinct instructors.
- The notation U# means the number of undergraduate courses (1xx – 4xx courses).
- The notation G# means the number of graduate courses (5xx – 7xx courses).
- The notation I# means the number of distinct instructors. If you encounter 'staff' as instructor, ignore it (i.e. do not count it as distinct instructor).
- The command line syntax for running **bucourses.py** program is as follows:

```
bucourses.py  <start semester> <end-semester>
```

You should crawl all semesters given in the start-end range. The table output should be written to standard output.