

COMP1200-MATLAB - Assign 06
Due 11:59pm – Friday –July 24th
Submit Assign06.m and data06.xls **via Canvas**

Before you start writing your program:

For your own use, create a development plan, especially an algorithm of what you need to include in your program. I suggest you write code for one task at a time and get it working before starting another.

NOTE: Your submitted file(s) MUST be spelled and cased as instructed.

Program: Assign06.m

Analyze the statistics from the Auburn women's 2012 softball season through March 25. Use data given in `data06.xls`.

- Create a report and bar graph of the opponents' and Auburn's total points for each game.
- Create a report and plot of the opponents' and Auburn's total points for each inning.
- Display Auburn's season record: win-loss
- Compare the points in each game after four (4) innings of play. Find and display the number of game where Auburn lead, trailed, and tied.

Read all instructions before beginning your work.

General Instructions:

-7 points per file for absence of any of these required comments at the top

- ☐ Insert comments at the top and throughout each file
 - Include the follow comments at the beginning of this (and ALL) files.
 - `% your name`
 - `% assignment number`
 - `% date you completed the assignment`
 - `% a short narrative about what the file does`
 - Use the algorithm as comments throughout each file
 - Use blank line and section comments to group work for each of the four tasks listed above.
- ☐ Use descriptive variable names.
- ☐ Save the name of the data file as a CONSTANT.
- ☐ Use Sample Input/Output as a guide.
 - Make sure the data file is there before proceeding with your program.
 - All the numeric data from the spread sheet will be in a large matrix. I suggest that you pull out the points for opponents and Auburn into two matrices for the analysis tasks.
 - You DO NOT KNOW the number of games.
 - You DO KNOW:
 - there are a max of 9 innings per game
 - the opponents' points start in column 4
 - Auburn's points start in column 13
 - Replace all non-numbers in the scores with zeros.
- ☐ Use `find()` to find to compare the points after four (4) innings.
 - `length()` will be helpful, too.
- ☐ Label report output and graphs as shown in the output example below.
 - Use `fprintf()` for printing.
 - Print column numbers right-aligned.
- ☐ Indent all blocks.

New commands
`xlsread()`
`isnan()`
`find()`
`length()`
`subplot()`
`plot(), bar()`

Submit via Canvas:

`Assign06.m`
`data06.xls`

m script program file
The data file that you downloaded needs to be submitted so that there is a copy in your submission folder for your program to read.

NOTE: Your submitted file(s) MUST be spelled and cased as instructed.

Sample Input/Output

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	date	attend	location	opp	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
2	9-Feb	252	Auburn, AL	Alabama State	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	x		
3	10-Feb	155	Auburn, AL	Wright State	3	0	0	0	0	1				1	5	0	0	2	4			
4	10-Feb	185	Auburn, AL	Bowling Green	0	0	2	0						3	6	1	0					
5	11-Feb	176	Auburn, AL	IPFW	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	x		
6	12-Feb	104	Auburn, AL	Appalachian St	0	1	0	0	0	1	0			0	0	1	3	1	0	1		
7	17-Feb	508	Auburn, AL	Oklahoma St	0	0	0	0	0					0	0	0	2	6				
8	19-Feb	345	Auburn, AL	Virginia Tech	0	0	0	0	0	0	0	0	0	0	0	1	0	0	x			
9	19-Feb	415	Auburn, AL	Georgia Tech	0	2	0	3	0	0	0	0	0	0	4	0	4	3	1	x		
10	22-Feb	219	Panthersville, Ga.	Georgia State	1	0	0	0	0					4	2	0	1	2				
11	24-Feb	211	Boca Raton, Fla	Florida Atlantic	0	0	0	0	0					1	0	1	0	7				
12	24-Feb	261	Boca Raton, Fla	Florida Atlantic	0	0	0	0	0	1	0			1	3	0	0	2	0	0		
13	25-Feb	261	Boca Raton, Fla	Michigan State	1	0	0	0	0	0	0			2	1	0	0	1	0	0		
14	25-Feb	261	Boca Raton, Fla	Florida International	0	1	0	0	0	0	0			0	0	1	0	0	1	x		
15	26-Feb	544	Boca Raton, Fla	Loyola Marymount	0	0	1	0	0	1				0	3	0	4	0	3			
16	2-Mar	113	Kissimmee, Fla	Syracuse	0	0	0	0	0	0	0			0	0	5	0	0	0	x		
17	2-Mar	122	Kissimmee, Fla	Michigan	0	0	0	1	1	0	2			0	0	0	0	0	0	0		
18	3-Mar	154	Kissimmee, Fla	North Carolina	0	0	0	0	0	0	0	1		0	0	0	0	0	0	0		
19	3-Mar	215	Kissimmee, Fla	UCLA	0	1	0	0	0	0	0			0	0	6	0	0	2	3		
20	4-Mar	217	Kissimmee, Fla	Penn State	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
21	11-Mar	213	Auburn, AL	Presbyterian	0	0	0	0	0					3	2	0	2	1				
22	14-Mar	1226	Baton Rouge, LA	LSU	0	0	0	0	0	0	0			0	0	0	0	2	0			
23	16-Mar	813	Athens, GA	Georgia	0	0	0	0	0	0	0			2	0	0	0	0	0			
24	17-Mar	1015	Athens, GA	Georgia	0	0	3	0	3	0				2	0	0	0	1	0	0		
25	18-Mar	1217	Athens, GA	Georgia	0	0	0	0	0	4				0	0	0	0	2	0			
26	21-Mar	438	Troy, AL	Troy	0	5	0	2	0	0				0	0	0	0	0	1	0		
27	23-Mar	291	Auburn, AL	Kentucky	0	0	0	0	3	1	0	4		2	0	2	0	0	0	0		
28	24-Mar	540	Auburn, AL	Kentucky	1	0	0	1	3	0	0			1	0	0	1	0	0	0		
29	25-Mar	364	Auburn, AL	Kentucky	1	0	0	0	0	0	0			0	0	0	0	0	2			

Season Points By Inning

Inning Opp Auburn

1	7	24
2	10	26
3	7	18
4	7	19
5	10	29
6	9	18
7	2	6
8	5	0
9	0	1

Season Points By Game

Game Opp Auburn

1	0	6
2	4	12
3	2	10
4	0	2
5	2	6
6	0	8
7	0	1
8	5	12
9	1	9
10	0	9
11	1	6
12	1	4
13	1	2
14	2	10
15	0	5
16	4	0
17	1	0
18	1	11
19	1	2
20	0	8
21	0	2
22	0	2
23	6	3
24	4	2
25	7	1
26	8	4
27	5	2
28	1	2

Auburn season record: 21-7

After 4 innings Auburn:

Lead in 18 games

Trailed in 4 games

Tied in 6 games

