CS701 Module 6 Assignment

General Rules for Homework Assignments

- You are strongly encouraged to add comments throughout the program. Doing so will help your facilitator to understand your programming logic and grade you more accurately.
- You must work on your assignments individually. You are not allowed to copy the answers from the others. *However*, you are encouraged to discuss approaches to the homework assignment with your facilitator.
- Each assignment has a strict deadline. However, you are still allowed to submit your assignment within 2 days after the deadline with a penalty. 15% of the credit will be deducted unless you made previous arrangements with your facilitator and professor. Assignments submitted 2 days after the deadline will not be graded.
- When the term *lastName* is referenced in an assignment, please replace it with your last name.

You are strongly encouraged to add comments into your program!

Create a new folder named HW6_*lastName.* Write the following programs in this folder.

AngularJS MapQuest Application (100 Points)

Using **AngularJS**, build the HTML application, *mapquest.html* (and mapquest.js), to display the directions from location A to location B. The data is obtained from the MapQuest AP I using the following syntax:

http://www. mapquestapi.com/directions/v1/route?key=<API_KEY>&from=<encoded From Location>&to=<encoded To Location>

For API_KEY, use mjtd%7Clu61200ynl%2Cas%3Do5-50ylq

A sample URL (from Boston, MA to Cambridge, MA) is shown below:

http://www.mapquestapi.com/directions/v1/route?key=mjtd%7Clu61200ynl%2Cas%3Do 5-50ylq&from=Boston%2C%20MA&to=Cambridge%2C%20MA

The from and to parameters are encoded using the JavaScript encodeURIComponent function.

The data is returned in JSON format. The following data is used in this sample:

- data.route.distance (Total distance)
- data.route.formatteTime (Total time)
- data.route.legs[0].maneuvers (array of Turn-by-turn directions)

From each maneuver object, use the following data:

- narrative, distance, mapUrl, and iconUrl

The initial layout of the application is shown below. The From and To fields are prepopulated. When the page is loaded, the directions are shown for those entries.
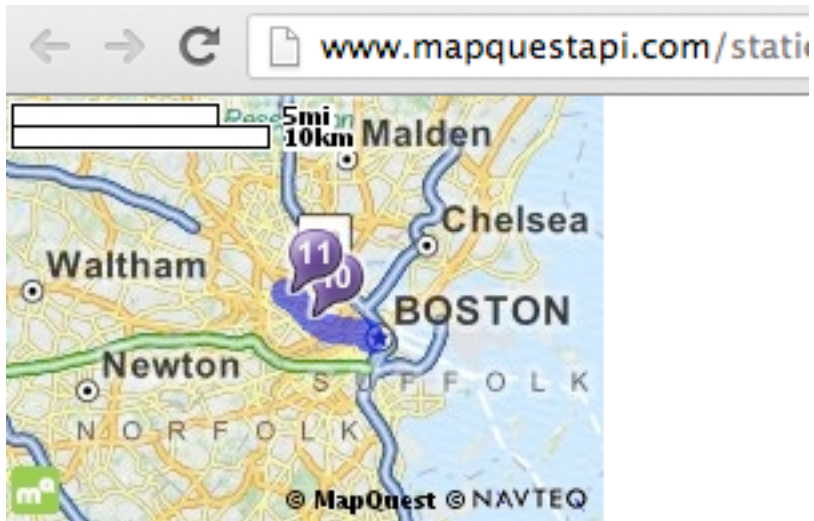
MapQuest

Boston, MA | Cambridge, MA | **Get Directions**

		Distance: 3.049m - Time: 00:10:50	
START	1.	Start out going southwest on Tremont St toward School St.	0.02m
→	2.	Turn right onto Beacon St.	0.06m
→	3.	Turn right onto Somerset St.	0.06m
←	4.	Turn left onto Ashburton Pl.	0.05m
→	5.	Turn right onto Bowdoin St.	0.16m
←	6.	Turn left onto Cambridge St.	0.53m
↑	7.	Cambridge St becomes RT-3 N.	0.32m
↑	8.	Stay straight to go onto Main St.	0.19m
↑	9.	Main St becomes Broadway.	0.47m
→	10.	Turn right onto Hampshire St.	0.77m
↰	11.	Turn slight left onto Cambridge St.	0.12m
→	12.	Turn right onto Line St.	0.20m
↰	13.	Turn sharp left onto Leonard Ave.	0.10m
END	14.	Welcome to CAMBRIDGE, MA.	0.00m

When the user clicks the line item entry, the associated map is displayed in another window as shown below. The URL displayed is the mapUrl property.

Also, when either the From or the To location entries change, the directions should be loaded automatically for those entries.