

Dalhousie University
CSCI6906 - Spec. Grad. Topics in Computer Science
2017 Fall
Assignment 1

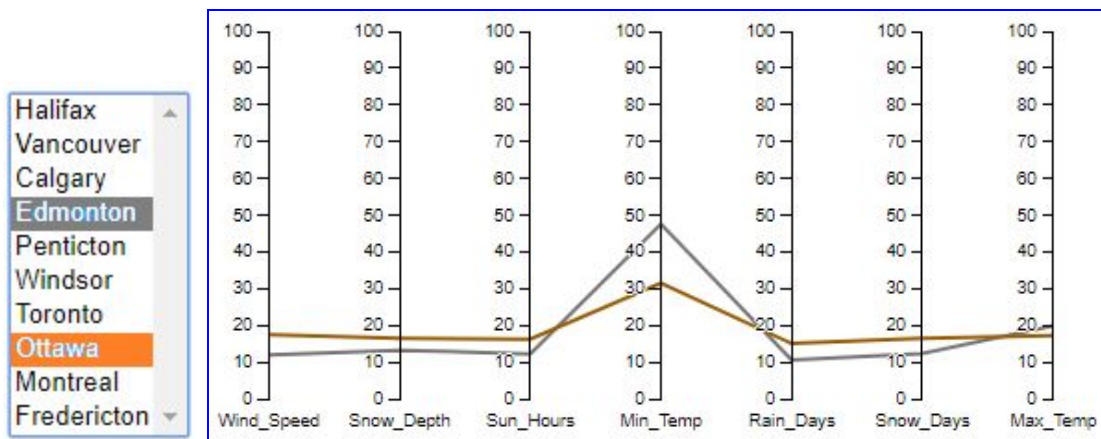
Due 11:55PM, Monday, November 06 2017.

Instructions:

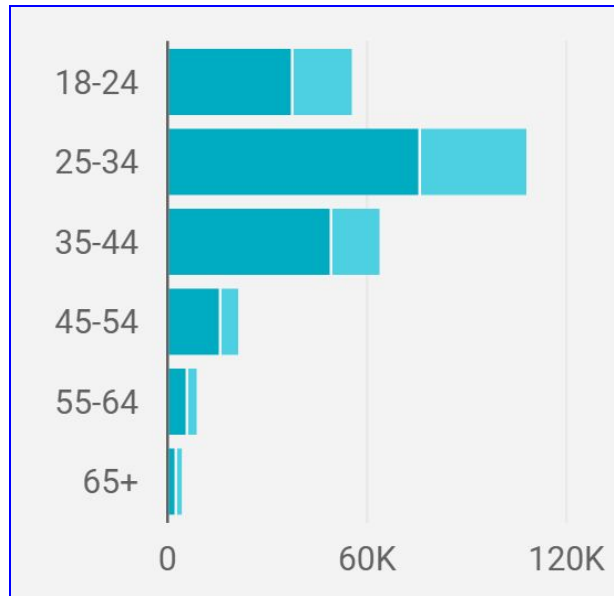
- Submit your assignments include your codes on **brightspace**.
- Read the Dalhousie Policy on Plagiarism.
- The assignment must be done **individually**.
- You are not allowed to use or reuse any piece of code from other students.
- Penalties will be applied as soon as the submission deadline is reached.
 - For each late submission day, 10% of the grade will be decreased.
 - After 10 days, will be graded zero.

Questions:

1. [30 Marks] Download [dataset1](#) from brightspace. Try to visualize the dataset using Parallel Coordinates diagram using D3. Each column of the parallel coordinates diagram will be the column of the dataset. Create a listbox and add the name of all cities. When a user clicks on the name of a city, the related diagram should be loaded on the parallel coordinates. The user can select multiple cities. The background color of the selected city should be the same as its parallel coordinate diagram.
 - a. You need to set the *multiple* attribute of the `<select>` tag to *true* and its *size* attribute equal the number of cities.
 - b. You do not need to create the parallel coordinator diagram from the scratch. You can use the parallel coordinator diagram described in the following link: <https://bl.ocks.org/jasondavies/1341281>
 - c. In the following, there is a sample expected output. Please note that in the following picture all the scales are from 0 to 100 but you need to set different scales for each of the dataset column related to the values of each column of the dataset. Example: for min daily temp. average it could be between -10 and 10.
 - d. You will get up to 5 bonus points if you add interactivity features. Example, adding tooltip related to the name of the city when the user hover on a diagram.



2. [20 Marks] Try to create the infographics shown in the following, as closely as possible, using HTML, javascript and D3.
- You are not allowed to use any code from Internet (e.g. any existing D3 code).
 - You get up to 5 bonus points if you read the data from a json or CSV file for your diagrams.



3. [10 Marks] Download [index.html](#) from the brightspace which explains how to create pie charts in D3. Try to create the following pie chart.

