README

The web analytics tool only works on Firefox for the moment.

Additional documentation for NEAT web analytics tool. Note that each visualization has additional comments within their respective HTML files. Each visualization is also modified from existing d3 example code found on the internet.

The github repo containing all the code can be cloned at: https://github.com/destab/NEAT-Web-Analytics-Tool.git

All of the visualizations are in separate html files. The html code in these files are the same, but the javascript code in the <script> elements are different. All of these files call draw.js, which is a javascript file that allows the transition between these files. Home.html is the first page users will visit and the page that is rendered when users clear any visualization. The css file: homecss, is the file used to customize all of the html files.

We are currently using csv files to generate the visualizations. All of the csv files are in the folder called csv. The average small multiple and the stacked bar chart visualization are comparative so they only need one csv file. The rest of the visualizations depend on the selected user, so there is one csv file per user. Inside the csv folder there are three other folders holding these csv files: heatMapData, smallMultipleData and streamGraphData.

Currently we are using different versions of d3 throughout the project. Small multiple, average small multiple, and stacked bar chart all use the latest version of d3 (version 4). Heat map currently uses version 3 and stream graph uses version 2 of d3. Since all of the visualizations are in different files, it is currently not causing a problem.

Queries we used from SQLite:

**Query for average small multiples:**

SELECT intParticipantID, avg(dblStressIntensity), strftime('%H', time(strDateTime)) AS hour, intSession FROM tblInferenceLog

WHERE (intParticipantID BETWEEN 6000 AND 7000) AND intSession > 7

GROUP BY hour, intParticipantID

ORDER BY intParticipantID

**Query for stacked bar chart:**

SELECT intParticipantID, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 11 AND intParticipantID = 6001) as day1, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 12 AND intParticipantID = 6001) as day2, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 13 AND intParticipantID = 6001) as day3, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 14 AND intParticipantID = 6001) as day4 FROM tblInferenceLog

WHERE intParticipantID = 6001

GROUP BY intParticipantID

UNION

SELECT intParticipantID, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 11 AND intParticipantID = 6000) as day1, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 12 AND intParticipantID = 6000) as day2, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 13 AND intParticipantID = 6000) as day3, (SELECT avg(dblStressIntensity) FROM tblInferenceLog WHERE intSession = 14 AND intParticipantID = 6000) as day4 FROM tblInferenceLog

WHERE intParticipantID = 6000

GROUP BY intParticipantID

UNION

**… repeat as needed for participants you want to include**

**Query for stream graph:**

SELECT substr(strDateTime, 1, 10) AS date, strftime('%H', time(strDateTime)) AS hour, avg(dblStressIntensity) AS stress

FROM tblInferenceLog

WHERE intParticipantID = 6000

GROUP BY substr(strDateTime, 1, 11), hour, intParticipantID

ORDER BY intParticipantID

**NOTE: Change the participant ID as needed (currently 6000)**

**Query for detailed small multiple:**

SELECT substr(strDateTime, 1, 10) AS date, substr(strDateTime, 12, 19) AS time, dblStressIntensity AS stress

FROM tblInferenceLog

WHERE intParticipantID = 6000

**NOTE: Change the participant ID as needed (currently 6000)**

**Query for heatmap:**

SELECT intParticipantID as participant, avg(dblStressIntensity) as stress, substr(strDateTime,1,11) as date, strftime('%H', time(strDateTime)) AS hour, intSession FROM tblInferenceLog

WHERE participant = '6008'

GROUP BY hour, participant

**NOTE: Change the participant ID as needed (currently 6008)**