

Assignment #2: Interactive Visualization Exercise

Data Analysis and Approach

The data is provided for 10 years. There are many missing values and there are not equal number of matches for all the years. It may be because some players may have got injured and so there are less games. I prepared a game tree which will give the overview of whole tournament for the given year. For that I placed the final winner in the middle and the previous round in the outer rings.

Choice of Variables

For my visual analysis for each game I used player name, Winner, Looser, Game result and the round of the game. So from the data set I used player1, player2, result, round and year.

Data Pre-Processing

For my approach I created separate json files for each year which can be found in data folder. In each json file I have parent node as the final winner and its children will contain the names of the player in that match, Winner and looser. And then their children's will contain the match data for next rounds. I have parsed the result string accordingly and stored in my match variable. The whole json is created recursively using python script by matching the row with its winner node and according children. The python script for data preprocessing can be found as preprocessing.ipynb.

Visual Elements

My visual game tree contains winner of the tournament as the center ring. Then previous matches as outer rings. If you hover over the specific match it will display the match results on right. It will also highlight the tournament journey of both the players in that game. I have chosen green theme for the visualization because of generally green court. The highlighted players are shown in yellow which contrasts green and also same as the tennis ball.

Opening Visualization

The visualization is viewed best in Firefox

If you want to view in any other browser run it using http server.

To run http server using python go to the directory where the index.html file is located.

for python 2x run

python -m SimpleHTTPServer

for python 3x run

python3 -m http.server

Open index.html for main visualization.

Bouns Questions

Bonus questions are in Bonus Folder.

