











Edited Nov 10

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Data Visualization (CSCI 627/490) Project 2022-11-09

1. Prototype of Visualization:

```
data = ▼ Array(983) [
 0: ▶ Object {: "0", nflId: "28955", name: "Larry Fitzgerald", position: "WR", weight: ".
 1: ▶ Object {: "1", nflId: "29141", name: "Andy Lee", position: "P", weight: "185", age
  2: ▶ Object {: "2", nflId: "29468", name: "Don Muhlbach", position: "LS", weight: "258"
 3: ▶ Object {: "3", nflId: "29874", name: "Mike Nugent", position: "K", weight: "190",
 4: ▶ Object {: "4", nflId: "29926", name: "Dustin Colquitt", position: "P", weight: "210
  5: ▶ Object {: "5", nflId: "30403", name: "Robbie Gould", position: "K", weight: "190",
 6: ▶ Object {: "6", nflId: "30452", name: "L.P. Ladouceur", position: "LS", weight: "25
 7: ▶ Object {: "7", nflId: "30869", name: "Andrew Whitworth", position: "T", weight: "3
  8: ▶ Object {: "8", nflId: "30932", name: "Stephen Gostkowski", position: "K", weight:
 9: ▶ Object {: "9", nflId: "30937", name: "Domata Peko", position: "NT", weight: "325",
 10: ▶ Object {: "10", nflId: "31018", name: "Sam Koch", position: "P", weight: "222", a
 11: ▶ Object {: "11", nflId: "31446", name: "Matt Prater", position: "K", weight: "201"
 12: ▶ Object {: "12", nflId: "31517", name: "Tramon Williams", position: "CB", weight:
 13: ▶ Object {: "13", nflId: "32202", name: "Ted Ginn", position: "WR", weight: "180",
 14: ▶ Object {: "14", nflId: "32224", name: "Greg Olsen", position: "TE", weight: "255"
 15: ▶ Object {: "15", nflId: "32386", name: "Mason Crosby", position: "K", weight: "207
 16: ▶ Object {: "16", nflId: "32436", name: "Clark Harris", position: "LS", weight: "250
 17: ▶ Object {: "17", nflId: "33107", name: "Duane Brown", position: "T", weight: "315"
 18: ▶ Object {: "18", nflId: "33131", name: "Calais Campbell", position: "DT", weight:
 19: ▶ Object {: "19", nflId: "33221", name: "Brandon Carr", position: "CB", weight: "210
  ... more
]
```

data_normalized = ▶ Array(983) [Object, Object, Objec



645: Tarell Basham (OLB)



```
sampleData = ▶ Array(6) [Object, Object, Object, Object, Object]

RadarChart = class

wrap = f(text, width)

palette = ▶ Object {text: "#222", grid: "#d3d3d3", gridAccent: "#C8DA2B", dot: "#0099D8",

opacify = f(c, a)

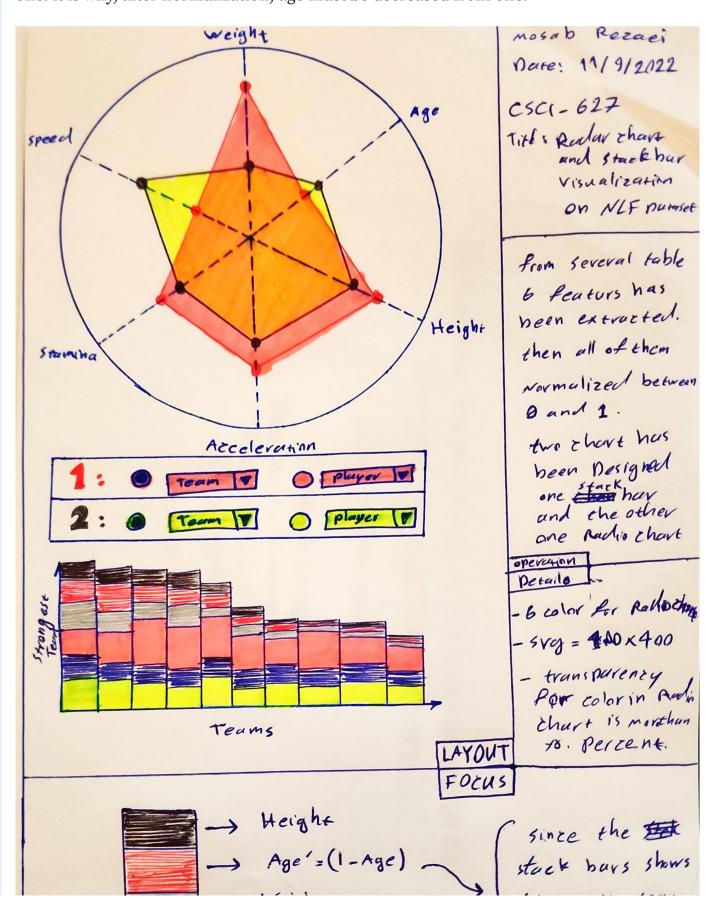
chroma = f()

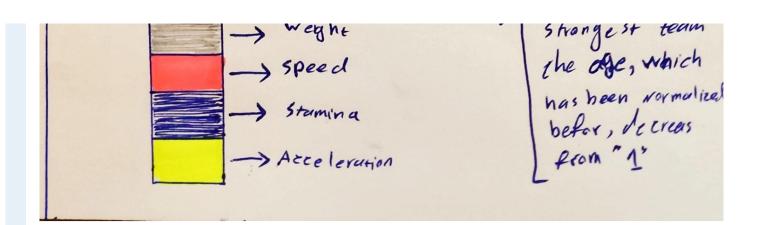
Min_Max = f(column)
```

undefined

2. First Sketch:

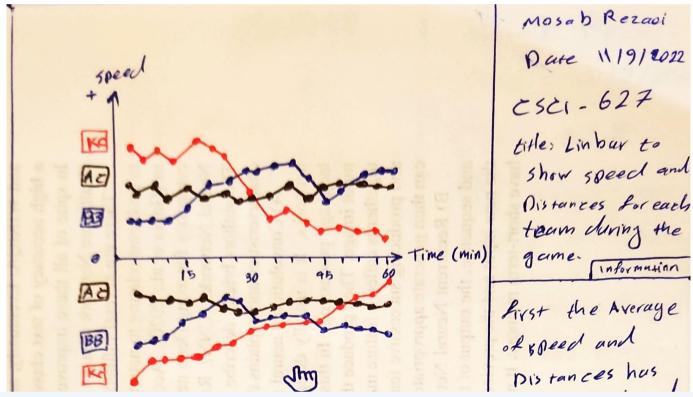
In the below chart, team coaches can figure out what is the main differences between their players with the other players on other teams. For example, a coach, by watching both charts notice that his team suffering from a lack of fast runner players. then again, by using the chart, he or she selects a player with a speed higher than his team. also, the chart offers the coach to have a glance at the other abilities of the player. It should be mentioned that the stacked bar shows the power of each team based on the extracted features. But in contrary to the other features, the lower "age" is better than, the higher one. it is why, after normalization, age must be decreased from one.





3. Second Sketch:

The below chart demonstrates the pattern behind the speed and acceleration of the player during the game. In other words, the line charts try to show the performance of the player during the game. the lines are interactive to help analyzers to have a precise view of the lines. By using this chart coaches can quickly understand when and how much their player lose their energy or change their strategy.



then ofter [AZ] normalizing [3] an Interactive thare will be operation Petail LAYout forus the designed line thart is After selecting one line shorp slope will be Interactive. highlighted . for example, each line has Man Sura here between 25 min and belong to a team. 35 min the Average speed had a sharp The object was slope which e need chart size is to be Analize with 600 x 600

4. Bad Sketch:

Finally, the goal of this chart was to merge both previous visualization to save space and transfer all the information just with one chart. maybe the shape of the 3d chart looks nice, but unfortunately, it is hard to understand and extract the information from it. On the other hand, some parts of the chart will be hidden by the other parts.

