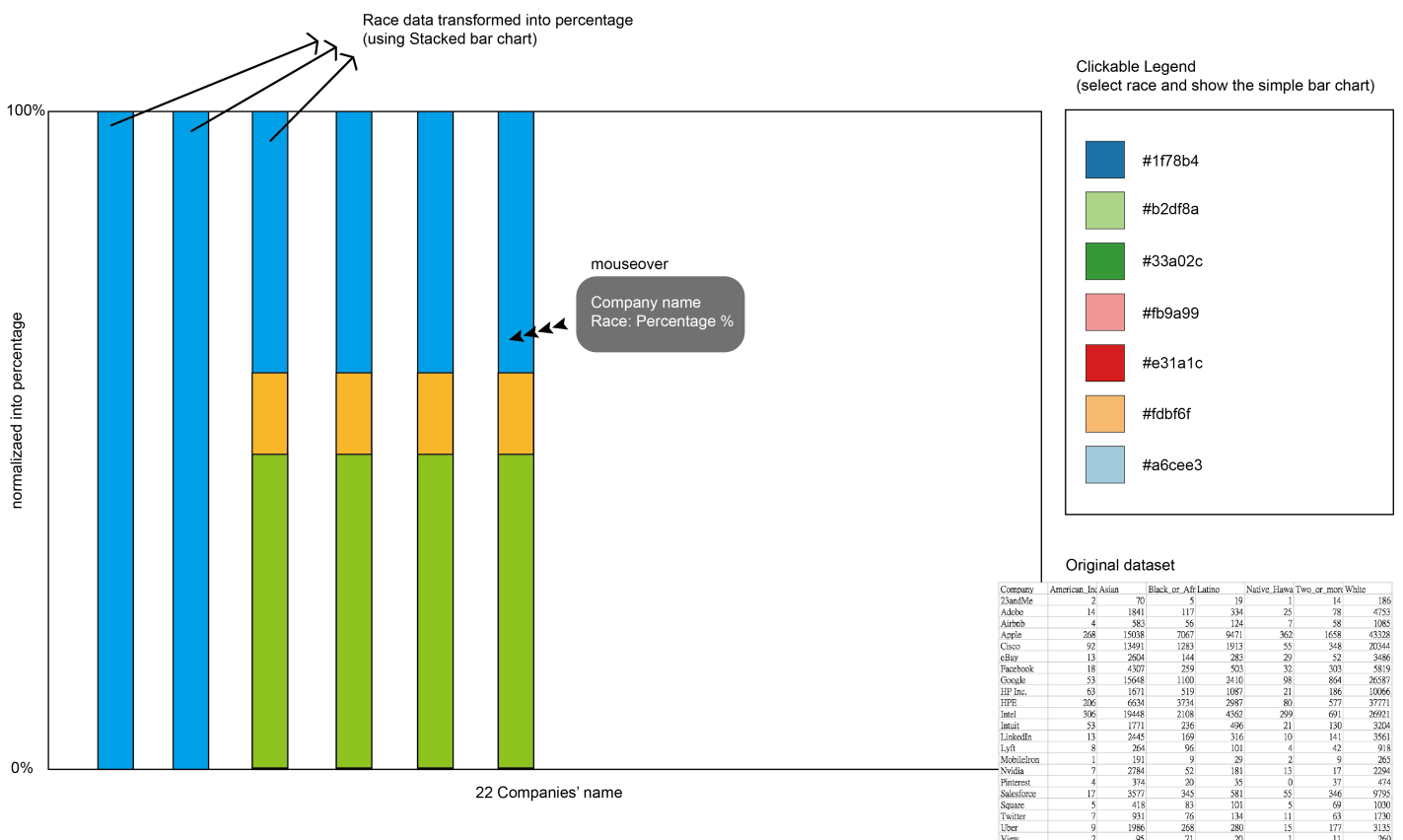# INFX 562 Assignment 3
Creating Interactive Visualization
Hsinyu Tso

- **Data domain and storyboard**

The dataset is about the race data of employees in 22 technology companies in Silicon Valley. The race data includes 7 labels and each has its count number in each company. The labels are Native American, Asian, Black, Latino, Pacific Islander, Two or More Races, and White.
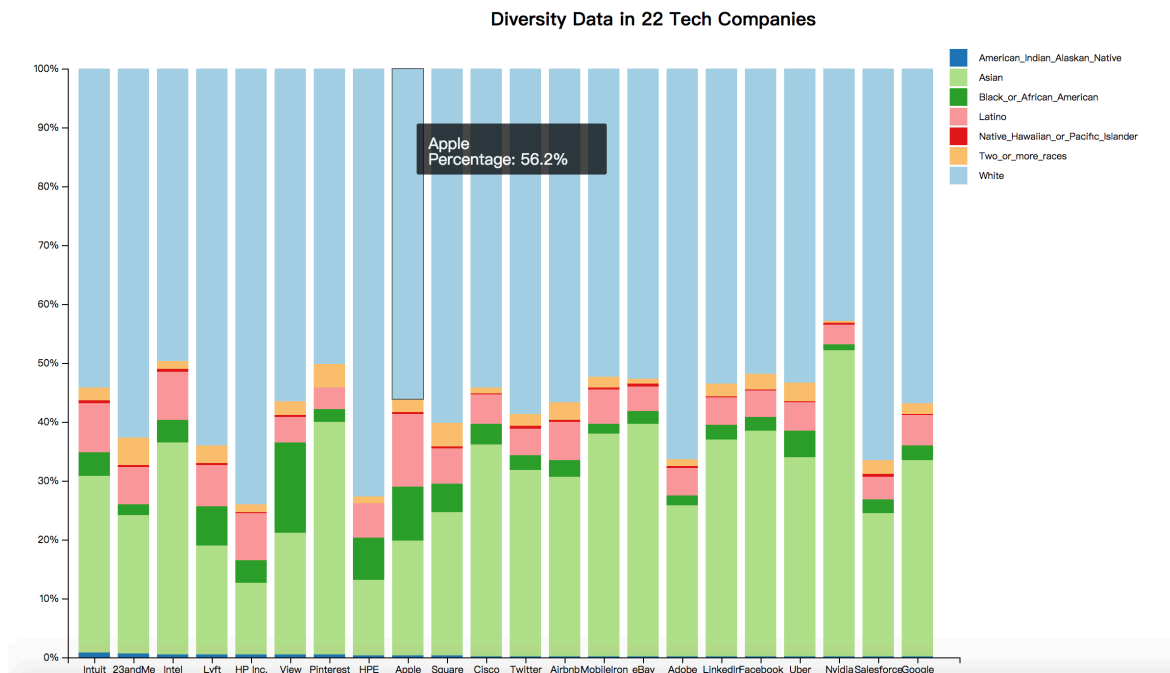

The storyboard shows the overall presentation of the planned interactive visualization. The numbers are transferred into the percentage to have an easier comparison of the diversity in each company because the size of companies has a great difference between each other. The data in each company is shown in a stacked bar chart with 7 colors represent 7 labels. By having stacked bar chart, it's easier to perceive the overall distribution of different race in each company. The colors are selected based on the color choice principle and can be distinguished by color blind.

Two interactive functions are planned to be implemented. One is the mouse over function on the stacked bar chart, showing the company name, race, and exact percentage of the data. The other is the clickable legend. By clicking the difference race in the legend, users should be able to see simple bar chart of the category, and the stacked bar chart would return after double click the legend. This would make the comparison between different companies easier since the bar would be drawn from the same y-axis.

- **Explanation of changes between the storyboard and the final implementation.**

There are two changes between the storyboard and the final implementation. Firstly, I added strokes for each stacked bar to make mouseover event more obvious. Another change is that I originally planned to have a clickable legend to hide/ show simple bar chart of each category, but I did not fulfill it in my final visualization.

Diversity Data in 22 Tech Companies

- **Implementation Challenges**

Since this is my first time working in D3, it takes me a lot of time to learn it from scratch. I realized that the stacked bar chart is way more complex than regular bar chart especially to normalized the data into a percentage. The most challenging task for me is to figure out the code in the sample and apply the code of online reference and turn it into my visualization. After I successfully made the normalized stacked bar chart, I was unable to fulfill the clickable legend because of my prior code my ability, and time constraint.