Udacity Project: Baseball Data Visualization

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First Tableau Public Workbooks Link:

- https://public.tableau.com/shared/J887SYGRZ?:display_count=no

Second Tableau Public Workbooks Link:

- https://public.tableau.com/shared/85YGCX7F6?:display_count=yes

Summary:

Baseball data is A data set that contain 1,157 baseball players, my goal is to create visualization to analyze the performance of players and to demonstrate if the different attributes affect their performance. And the attributes that are included are their handedness (right or left handed), height (in inches), weight (in pounds), batting average, and home runs.

Result and Findings:

- The bar chart shows that the on average left-handed players are scoring more but their count is less than right handed by 421.
- At a range between 0.1 to 0.32 of Avg the median for the left-handed group is higher by 0.1 than the other handed groups.
- The median value of home runs scored by left handed players is approx. 50% more than other handed groups.
- 5 of the top 10 players are left handed and the top 1 player is left handed.
- There is a positive relationship between Avg and HR which means left handed players they mostly perform better than the other handed group because of having higher Avg on average.

Design:

First of all, my goal from this visualization is mainly to show the differences between different handed plyers. Therefore, to visualize the given data in the baseball dataset it was enough for me to use five worksheets, one Dashboard and one Story activity to demonstrate the point that I want the audience to comprehend, below is a breakdown explanation why I selected each design:

- A Bar Chart for Handedness Attributes Comparison:
  In this work sheet I wanted to show the attributes between different handed players by first showing how many players in each group and once the receiver hovers on any of these hand groups he/she will see the average value of each attribute related to it.
- Box Plot for Handedness vs Avg Batting:
  The average batting is a very important factor to the home runs as will be demonstrated in a scatter plot at the end of the story, so here I had to show the medians for the different handed groups and I had installed some filters to give the ability to the receiver to remove any outlier

data he want to remove from the plot, plus when the user hover on any data point he will see the full data for that particular player.

- Box Plot Handedness vs Home Runs:
  Also, here I wanted to move at the same pattern by showing how the different handed player could have an effect on the playing.
- Bar Chart for Home Run:
  In this chart the receiver will be able to see who are the top players and what are their attributes by hovering above any data point.
- Scatter plot for Avg Batting vs Home Runs hue handedness:
  In this plot finally, I had to show the relationship between the home runs and the average batting to relate to the data demonstrated before because if there is a positive relationship it means Left handed plyers are most likely to score more than the other handed groups.
- Dashboard 1:
  Here I included all the five worksheets to make it easier to play with all the visuals at one time by changing the values of the players attributes.
- Baseball Data Story:
  Designed to show the audience the effect of the different attributes of different player and how different handedness groups also effect the result of the game.

Feedback:

Most feedback I have received is positive and for the negative points I wrote below the corrective action in blue:

First Feedback:

- The bar chart at the begging is really clear to me and I can see the differences directly.
- I am not familiar with second and third plot “the box plot” so not much comment I can give here.
  Corrective Action: I explained the principle of a box plot.
- It is actually good to see who are the top players but you have missed to include the handedness attribute when hovering on any data point.
  Corrective Action: I have added the handedness attribute
- From the scatter plot I can clearly see there is a positive relationship between the batting and the home runs and it seems that most players are right handed.

Second Feedback:

- The visualization states clear findings.
- Clearly communicated and well explained design choices.
- Well done providing the reasons behind choosing those specific charts.
- Interactions adds up to the visualization.
- Your summary lacks findings, please explore the data more to include interesting findings! rather than just explaining what handedness means or refers to.

Corrective Action: I have updated the summery section to clarify what my visualization is conveying to the audience.

- You must include evidence to show the changes you've made after collecting feedback, so add two links, 1st link for the 1st version and 2nd link for the final version of the project.
  Corrective Action: Done, I have included another link to meet the requirements.
- Feedback collected and documented, but please include your response to each point and how you dealt with it.
  Corrective Action: I have included a response in blue color above under each point that needed action to be taken.

Third Feedback:

- Excellent work, you have created a nice story with great visualizations.
- Excellent job, visualizations clear and centered just make sure to use a larger width as it makes visualizations more attractive.
  Corrective Action: I have changed the size to automatic.
- Great work on documenting the design decisions.
- Excellent work.
- In the summary section, you included the below:

  Baseball data is A data set that contain 1,157 baseball players, my goal is to create visualization to analyze the performance of players and to demonstrate if the different attributes affect their performance. And the attributes that are included are their handedness (right or left handed), height (in inches), weight (in pounds), batting average, and home runs.

  Now this is awesome, you only need to include some findings from the data and not just in this section but also in the caption area of your story. So please go to each visualization check what findings it provides and write it in the caption and then copy it to the summary section of the write up. For example, in the scatter plot there seems to be a relationship between Batting average and the homeruns, explain this relationship and document it in the caption and the summary.
  Corrective Action: I have included a “Finding and Result” section under the summary plus I have changed the story caption and added my findings for each chart.
- This is the link you provided in the write up as the first link, but it is just one plot, can you please include the link to the entire story before making the changes: https://public.tableau.com/views/Udacity_Data_Story_Telling/HandednessAttributesComparison?:embed=y&:display_count=yes.
  Corrective Action: I have changed the link.
- Excellent work, you have provided the response as advised.