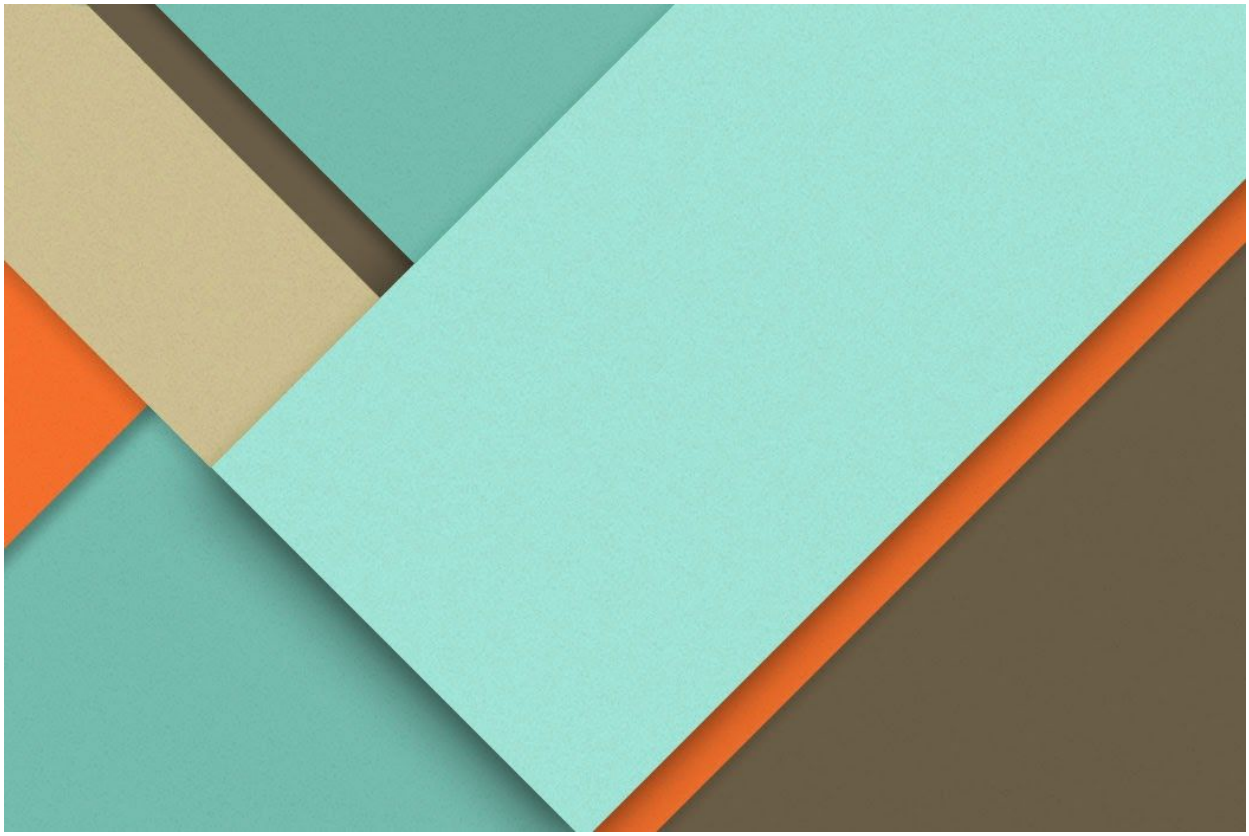


Data Visualization II

02.11.2020

Akshith Patil
29717973

URL: https://akshithP.github.io/FIT3179/A2 Files/
Words: 692

Domain, Why & Who?

The intended audience for these visualizations is the general audience interested in cricket and the Indian Premier League (IPL). IPL is a professional Twenty 20 cricket league that takes place in India every year by 8 different teams representing 8 Indian cities.

The primary goal of this visualization is to demonstrate a various range of statistical data over the last 11 seasons of IPL, from 2008 to 2019, using unique idioms. The statistical data comprises of players origin country, players with most run for all seasons and comparison of team wins for all seasons etc.

The illustrated information is created to be analysed or consumed by cricket and IPL supporters and simply enjoy it.

What? (Data)

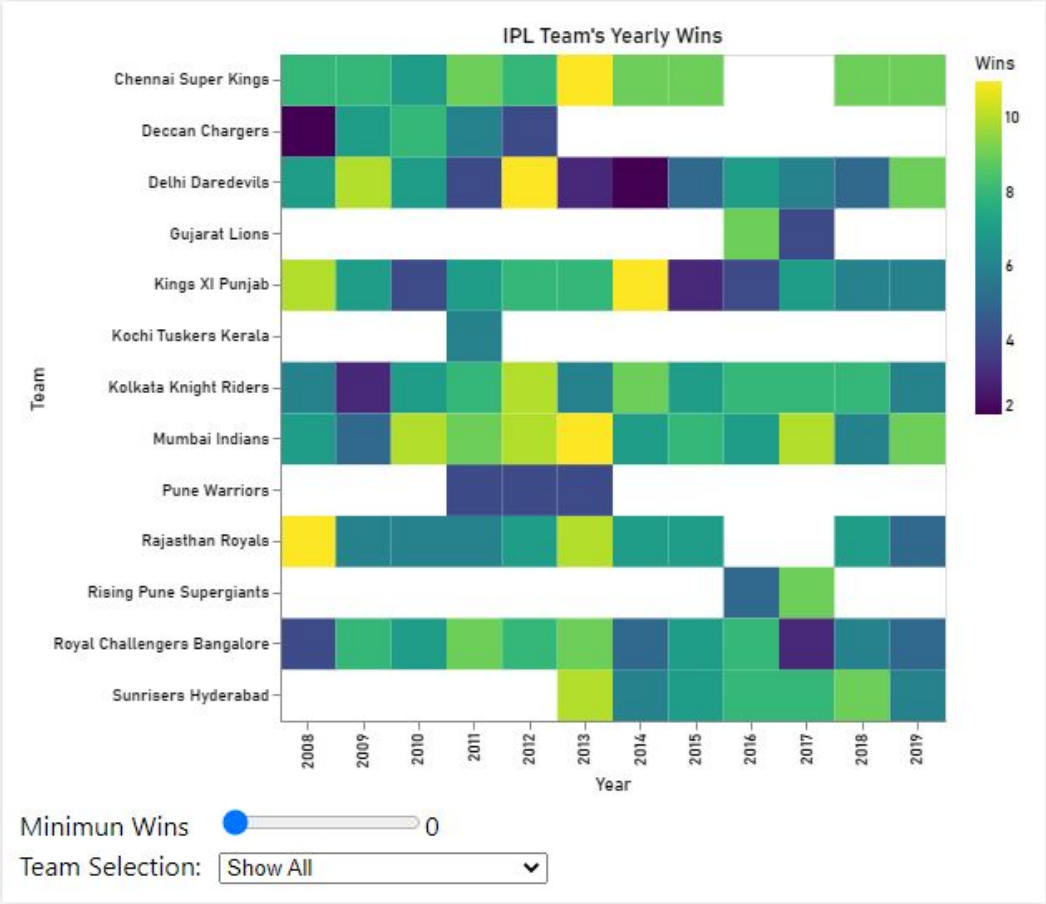
The dataset consists of multiple CSV files where each file contains a unique set of data and attributes related to IPL. For instance, players CSV file includes players data of their date of birth, batting hand style, bowling skill and country of origin. Remaining CSV files also contain similar types of data including teams wins for all the seasons, individual player batting statistics. All CSV files are a collection of data collected from all 11 IPL seasons from 2008 to 2019 (Ramji, 2020).

Dataset has been found on Kaggle and created recently by author Ramji, in September 2020. The author created this dataset by utilizing pre-existing datasets that were not inconsistent and not updated. Hence, this motivated the author to use existing datasets and “improve the dataset” (Ramji, 2020) to make it relevant as possible.

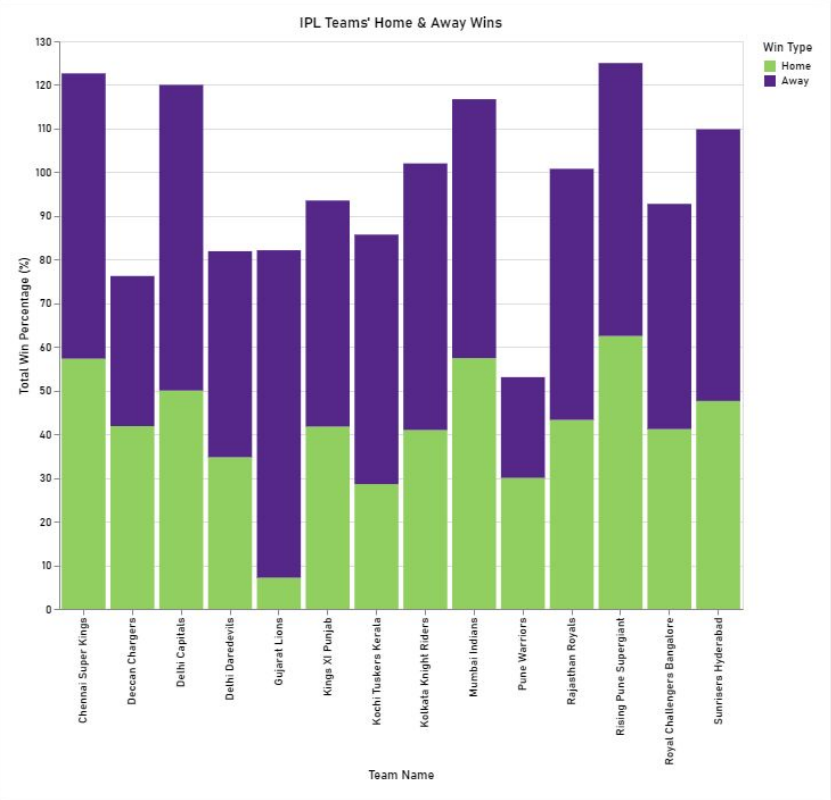
Why & How? (Idioms)

The first idiom created is the heat map. This heat map represents the total number of wins for all seasons and for all teams that have participated in the season. This visualisation gives an overview of all wins for all teams for all the IPL seasons to the users with a single visualization, it allows user to gain a better understanding of each teams performance. They can conveniently compare their favourite team’s seasonal wins against their rival teams. The visualisation can be interacted by hovering over each square that displays the team name, total wins for that team and year. Users are

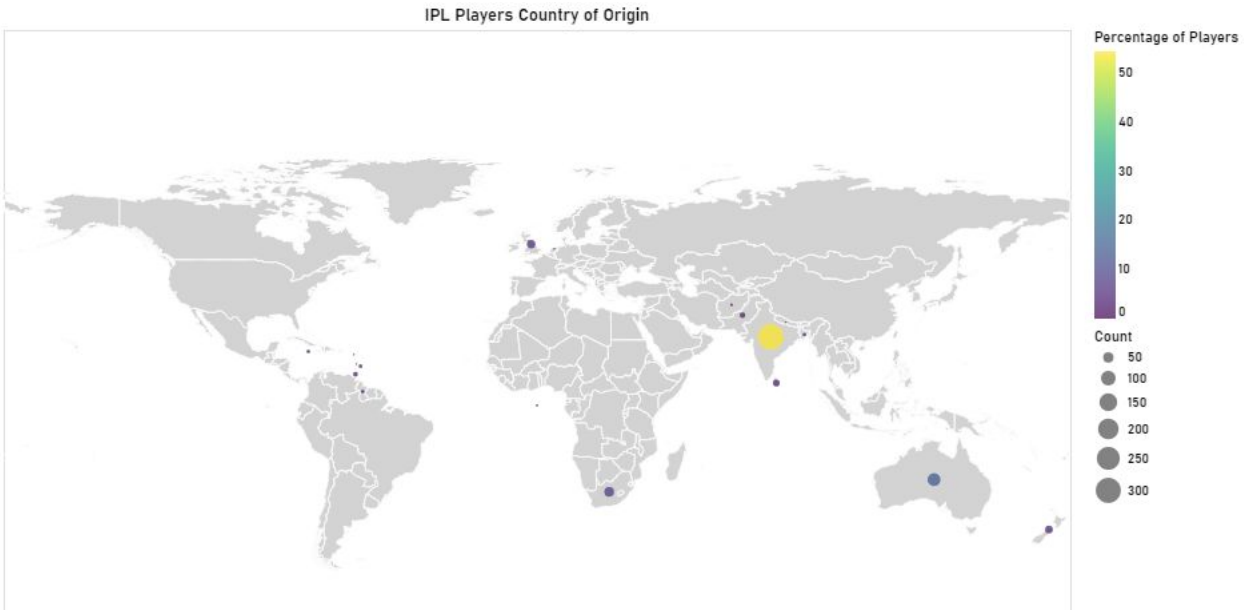
granted with an option to filter teams and can select only one team and can also use the slider to set a minimum amount of wins to display on the heat map. The white boxes exist in the heat map due to the team not participating in certain years.



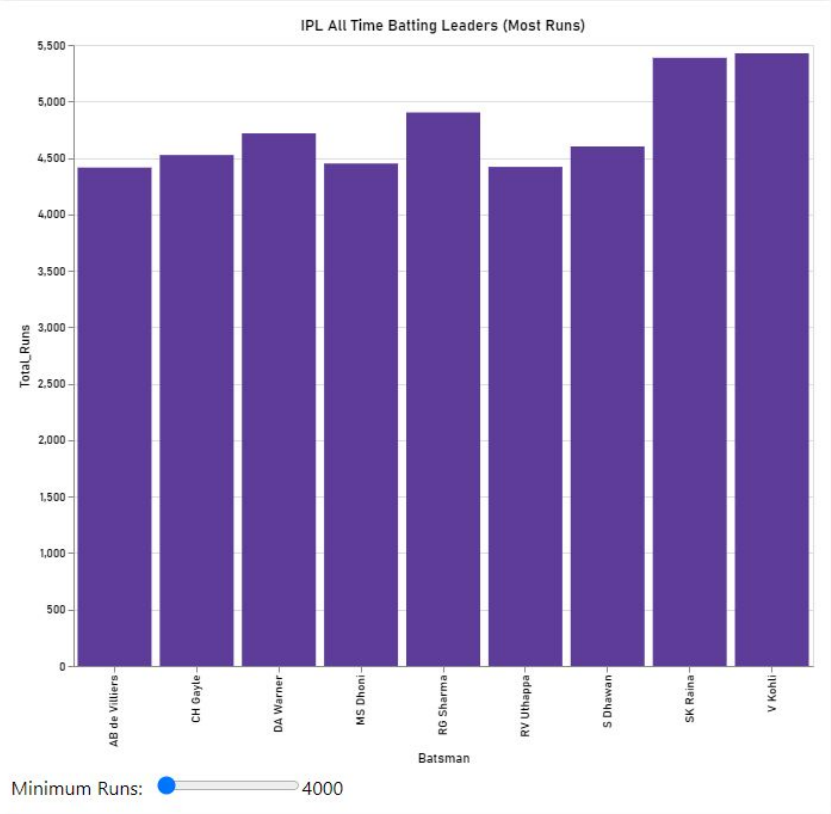
Following visualisation is a stacked bar chart illustrating the home and away win rates for all teams and from all the seasons they've played in. The stacked chart can be used by users to compare the home and away win rate between their favourite and rival teams. This visualisation contains tooltip which is activated when the user hovers over the bar revealing useful information and each bar can be selected which will then highlight the certain bar. It allows users to focus on a single team.



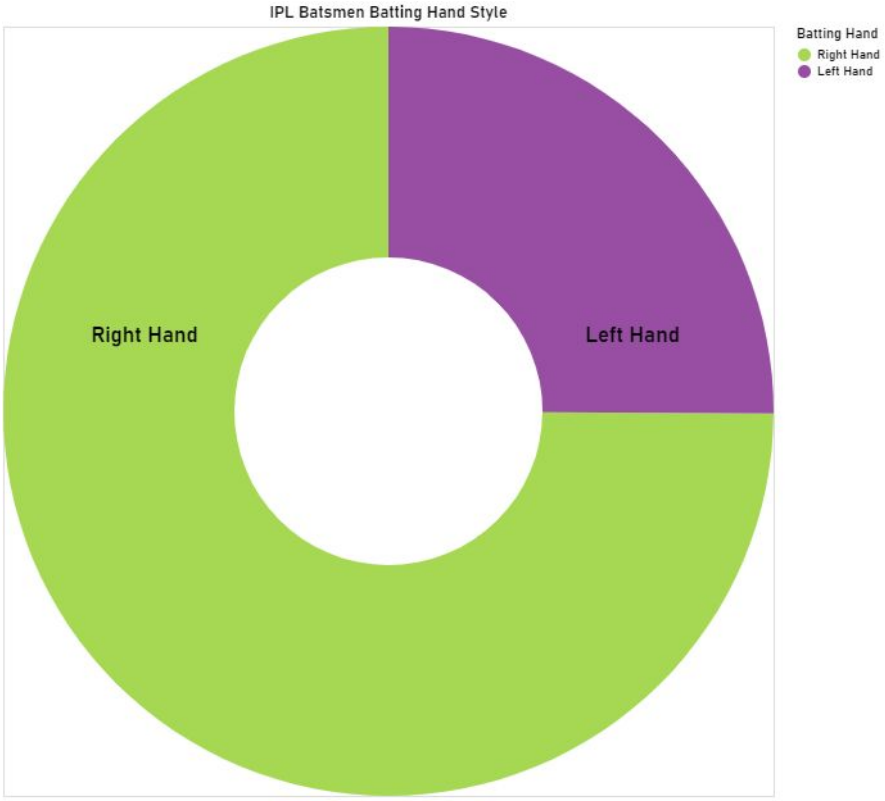
Below is a proportional symbol chart illustrates the number of IPL players from born in different countries. Users can use this visualisation to understand the distribution of players origin country. Again, users can hover over each circle that further display the country name and a total number of players.



The bar chart demonstrates the total amount of runs made by the top ten players for all seasons combined. Obviously, users will be able to identify the best players amongst the top ten batting leaders. It includes a slider to filter the minimum number of runs to be displayed on the chart. Along with the slider, visualisation includes a tooltip that displays player name and their exact runs made.



This doughnut chart represents the total proportion of players with left or right-hand batting preference. Users are able to clearly view the proportion of left and right-hand players in all IPL seasons. Doughnut chart is used since it best represents the part-whole relationship and players can easily use the area to determine the quantitative value. The chart has a tooltip and can filter from the legend.



Bibliography

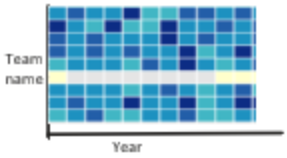
IPL Dataset

Ramji. (2020). IPL_Data_Set. Retrieved from https://www.kaggle.com/ramjidoolla/ipl-data-set

Appendix

1. Ideas

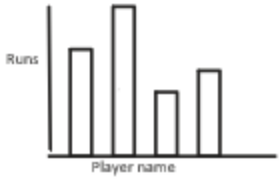
Team Wins for all seasons - Heat Map



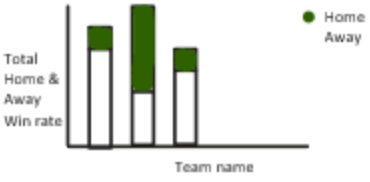
Area cartogram or Proportional Symbol chart for players origin

Left hand and right hand players - Pie chart, bar chart?

Bar chart for players with most runs, pie chart

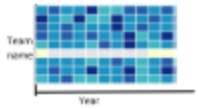


Stacked bar chart for home and away wins



2. Filter

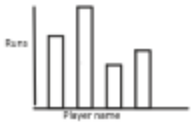
Team Wins for all seasons - Heat Map



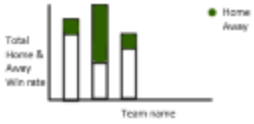
Players origin - Proportional symbol chart

Players batting hand - Pie chart

Player runs- Bar chart



Team home and away win rate



3. Categorize

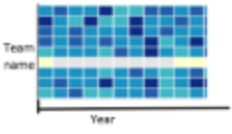
Part whole relationships
- Distribution between player batting style
- Distribution between players with most runs

Proportion
- Proportion of players country of origin
- Proportion of home and away win rates for all teams

Tracking
- View the wins for all seasons for all teams. (Heat map)

4. Combine and Refine

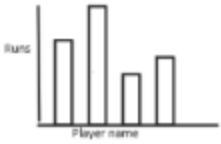
Team Wins for all seasons - Heat Map



Players origin - Proportional symbol cha

Players batting hand - Pie chart

Player runs- Bar chart

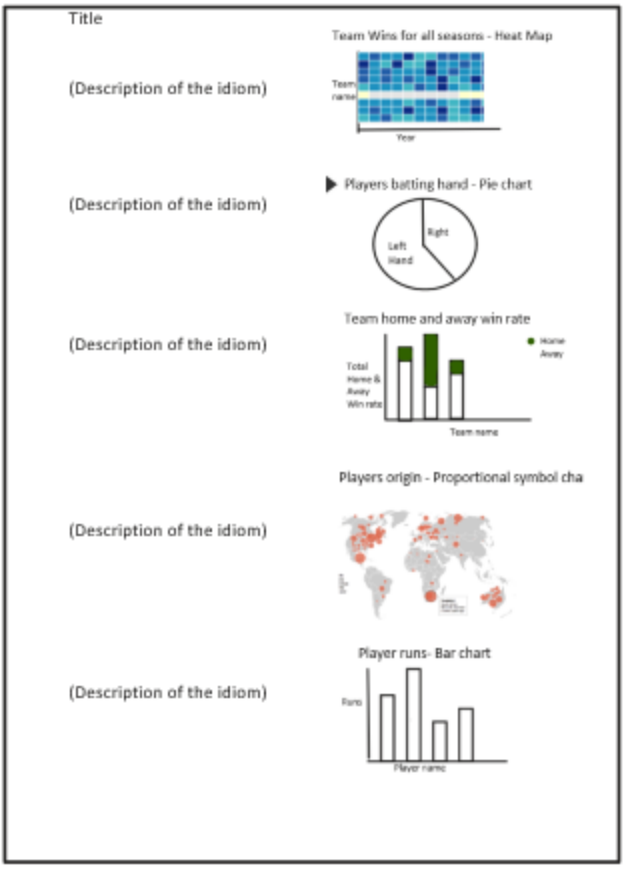


Team home and away win rate

5. Question

Which team is more successful?
Who has the most runs?
Where are the most IPL players From?
Which batting hand is mostly Preferred?

Layout



Title: Simple Page

Auther: Akshith Patil

Date: 18th Oct 2020

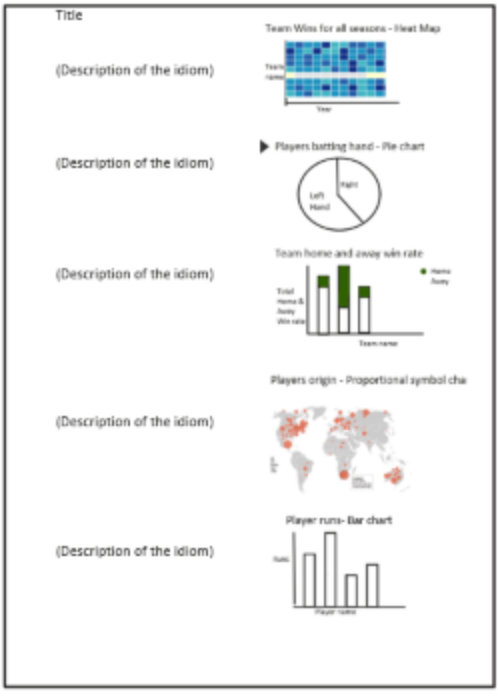
Sheet: Sheet 2

Task: IPL Statistics

Operations

Each idiom will be interactive, users can filter the amount of minimum runs, teams or win rates. Users can also hover of the bar, circle or squares that will show further information of team or player name of other quantitative attributes.

Focus

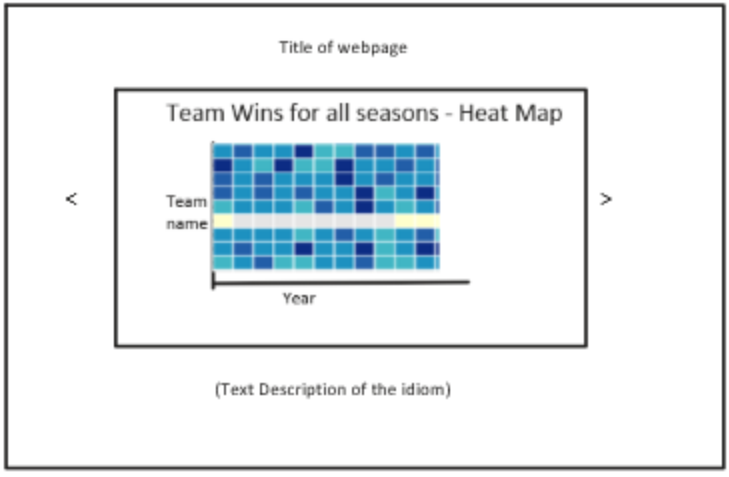


Main focus of this design description of the idiom along with its followed idiom, its consistent and readers can begin from top left and finish at bottom right. Easier for the human eye to follow.

Discussion

The viewing path is very clear to follow for users. Its consistent to read and easy to follow. This design could be possibly used.

Layout



Title: Slide Show

Auther: Akshith Patil

Date: 18th Oct 2020

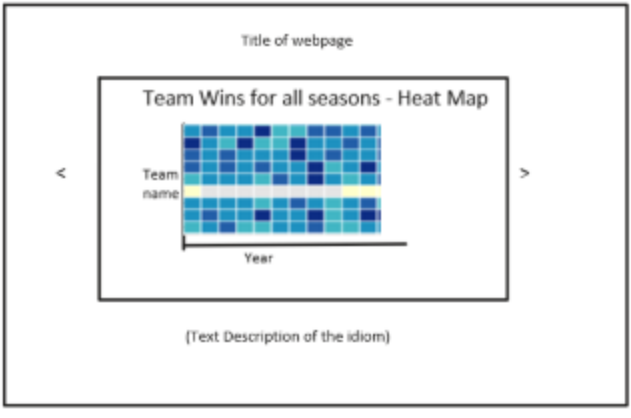
Sheet: Sheet 3

Task: IPL Statistics

Operations

This design consists of a slideshow, user can scroll through the different visualisations using arrows for left or right to switch. Moreover each visualisation has a tooltip that is activated when hovered over, there will be sliders and menu for filtering.

Focus

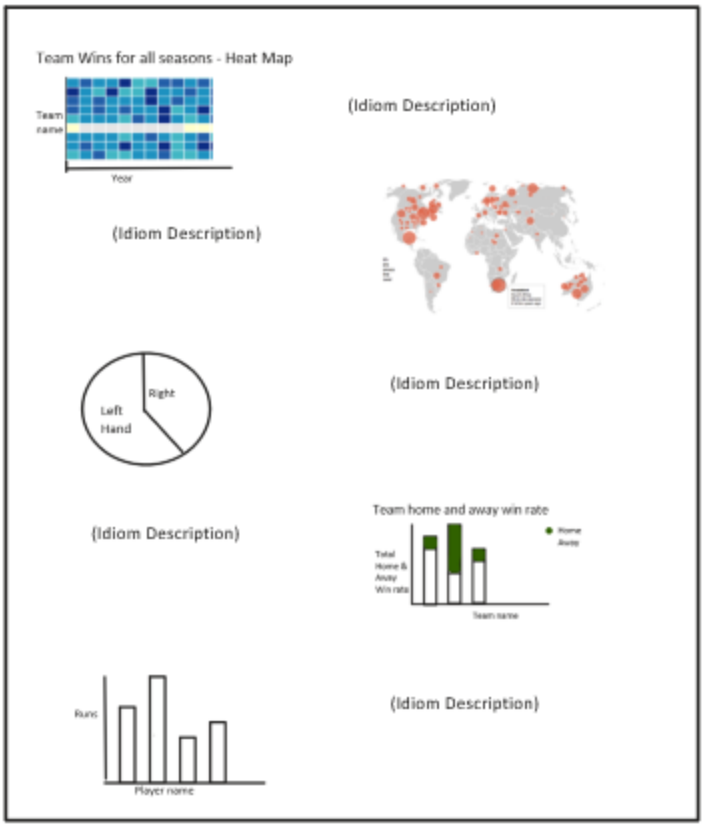


Primary focus here is to allow users to concentrate on a single visualisation. Users can switch between idioms whenever they want and the text will be displayed based on the idiom selected.

Discussion

The design is great since it allows users to focus on single idiom and not cluttered, is very clear. However, it is not very user friendly, UI is poor and users might assume it is a slideshow for pictures, not for actual visualisations.

Layout



Title: Stylised Page

Auther: Akshith Patil

Date: 18th Oct 2020

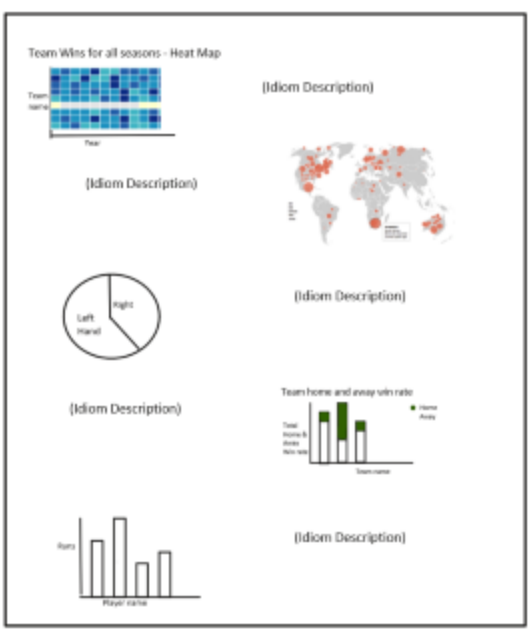
Sheet: Sheet 4

Task: IPL Statistics

Operations

Each idiom will be interactive, users can filter the amount of minimum runs, teams or win rates. Users can also hover of the bar, circle or squares that will show further information of team or player name of other quantitative attributes.

Focus



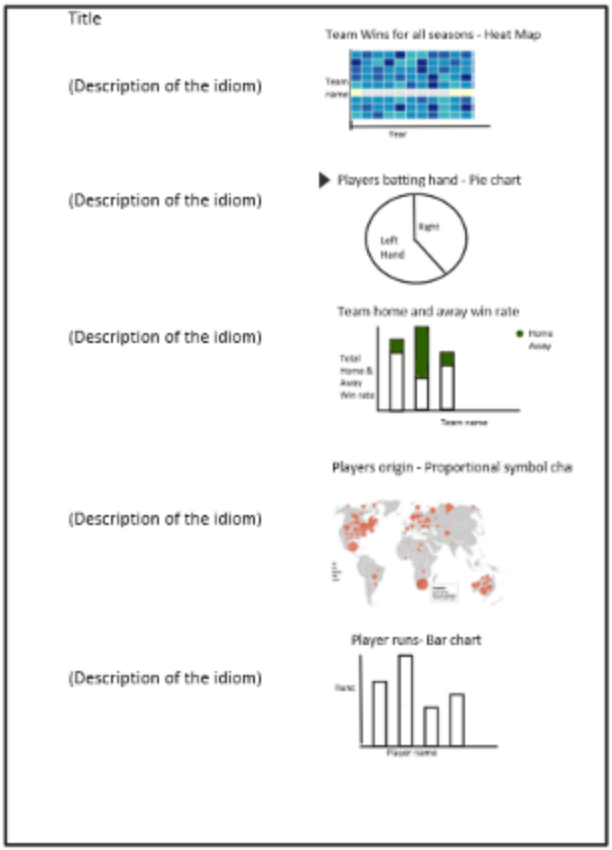
Design is inspired from week 10 homework, Kadek's stylised page. Similar to the simple page, but the idiom and text are swapped left to right every idiom.

Discussion

The viewing path for the visualisation is inconsistent and sort of strains the user by switching the idiom and text for each line. However, it is attractive and appealing, so not the best option.

Layout

Final Design - Simple Page



Title:	Stylised Page
Auther:	Akshith Patil
Date:	18th Oct 2020
Sheet:	Sheet 4
Task:	IPL Statistics

Operations

Each idiom will be interactive, users can filter the amount of minimum runs, teams or win rates. Users can also hover of the bar, circle or squares that will show further information of team or player name of other quantitative attributes. Each idiom will have its unique interactivity, for instance the heatmap will have a filtering menu, where users can select a certain team for view their wins for all seasons.

Focus

Main focus of this design description of the idiom along with its followed idiom, its consistent and readers can begin from top left and finish at bottom right. Easier for the human eye to follow.

Detail

The viewing path is very clear to follow for users. Its consistent to read and easy to follow. Its very simple and not complicated, isn't too cluttered. Best option from all designs.