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Assignment #1: Data Exploration & Static Visualization Design
10 Years Professional Tennis Australian Open Championship Final Matches

Introduction
This assignment is to design a static visualization to convey a story from the provided data set.

Dataset
Data used to analyze is the 10 years Professional Tennis Australian Open Championship final matches statistics with some information, such as: year, player's name, ace, player's country, double, first point won, second point won, fast serve, break, return, total point, error, the winner, result.

Data Addition
I also include the result and information of the latest final match of Australian Open 2019, which happened on 27th January 2019 between Novak Djokovic and Rafael Nadal. Therefore, there are 22 rows and 34 columns in total.

Task
I will utilize Second Point Won and Return to define the relationship between them and the champion as well as the runner-up in 11 years.

Specification
All the information extracted from the dataset will be demonstrated on the scatter chart.
X-axis is the Second Point Won and Y-axis represent Return. Every point on the chart is demonstrated by a circle with colorful fill (blue for the winner and red for the loser). Moreover, inside area of the circle point is a picture of player and the label around it is the year of the match.

Analysis
According to the chart, we can see that the players who have a better measurements of Second Point Won and Return are mostly the winners, otherwise are the losers. Even we can draw a linear to seperate them. This relationship is only broken in 2009 and 2017.
In 2009, Roger Federer with higher return was beat by Rafael Nadal with a higher second point won. On the other hand, they met again in Final Match in 2017, but Roger Federer win the match despite lower second point won than that of Rafael Nadal.

Tool
R is used to process, analyze and visulize data with some libraries (ggplot2, ggimage, ggrepel). Images and 2019 Australian Open Final Match statistics are on ATP Tour website[1] and official website of Australian Open[2].

Reference
[1] ATP Tour - **www.atptour.com**
[2] Australian Open - **ausopen.com**