# Home advantage in the NBA

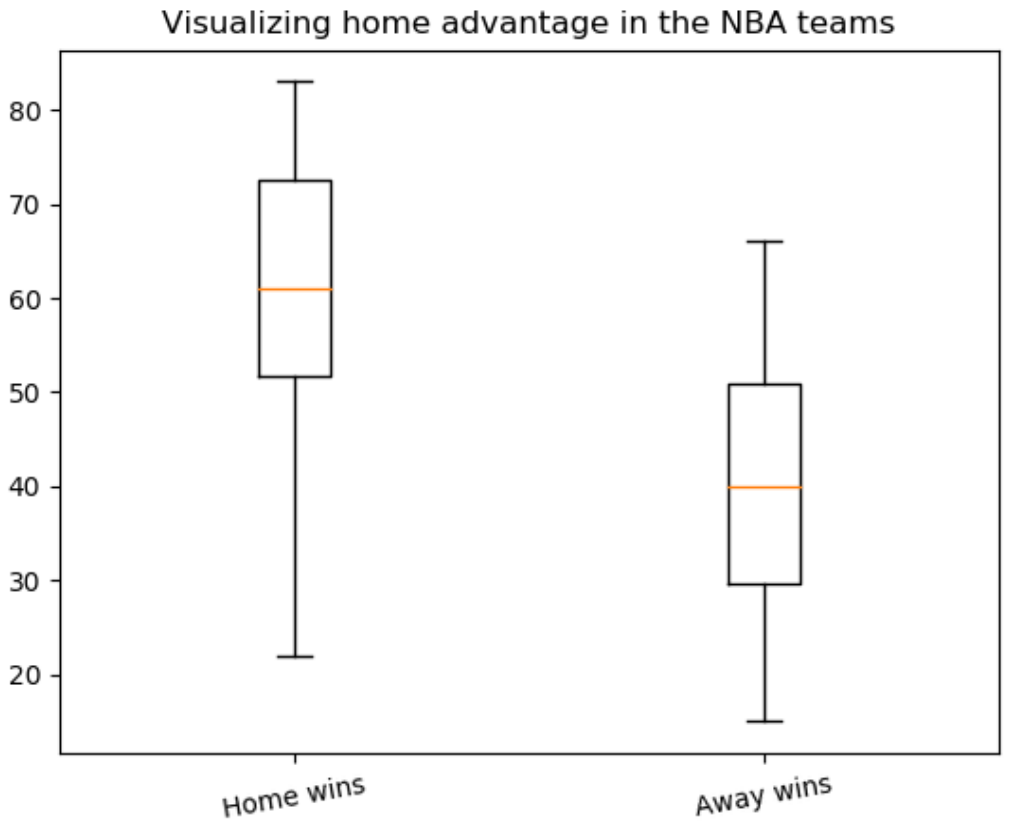
Visualizing data using python libraries

# What is home advantage

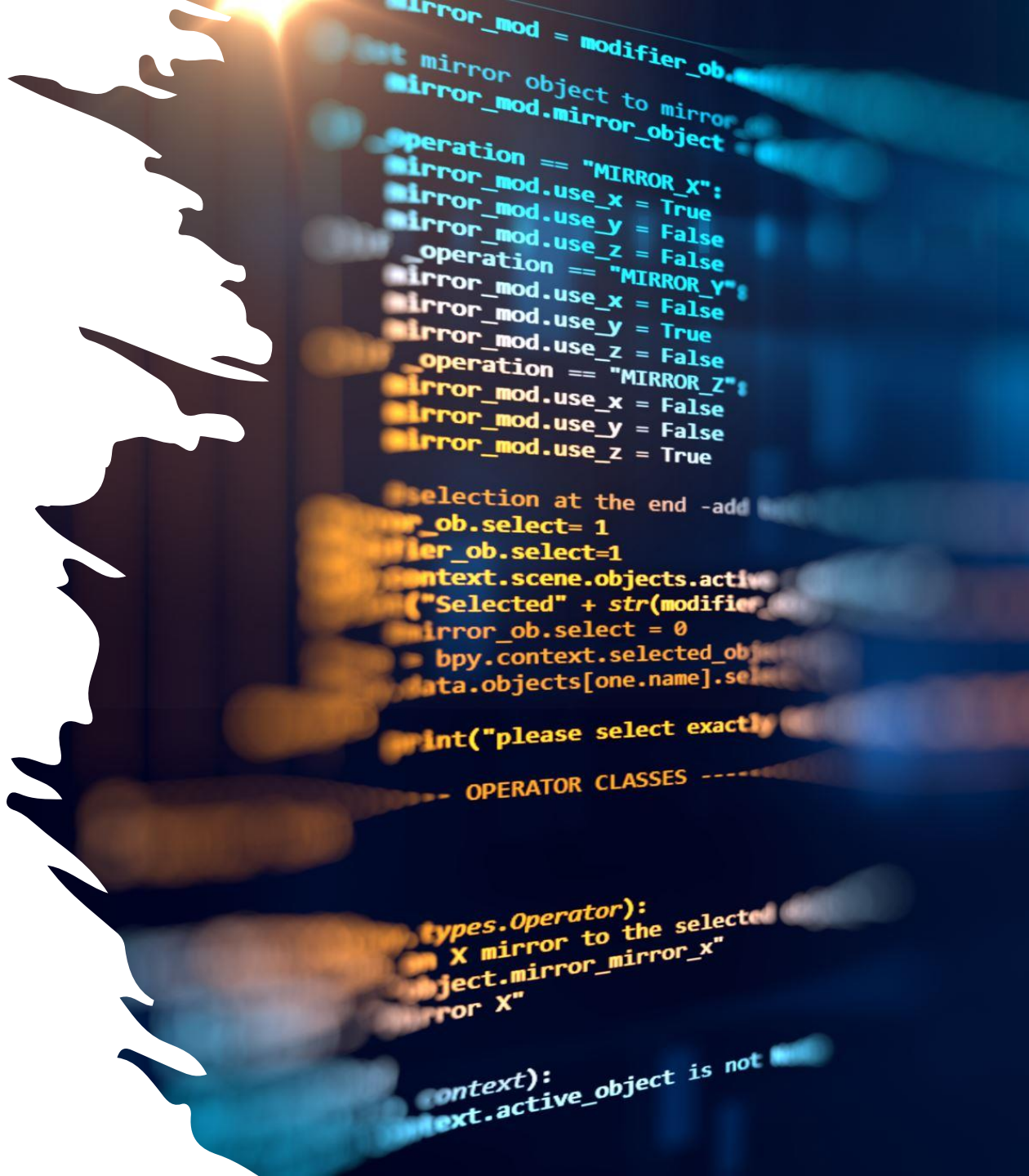
- **A phenomenon in which the home teams in sport win over 50% of games played under a balanced home and away schedule**
- **Observable in different sports**
- **Calculated using win percentages**

# In real life

- On average, NBA teams won 59% of the games they played at home compared to 40% of the games they played away



-Used Matplotlib to draw box plot
-Used numpy to process data






# Looking beyond basic visualization

- Python has other packages for deeper analysis such as SciPy, Pandas, seaborn, sci-kit learn
- For instance:
  1. Compare home advantage during covid versus pre-pandemic
  2. Correlation between home advantage and other factors such as distance travelled by team, number of fans
  3. Calculating t-tests, confidence intervals

# References


1. *Stack Abuse*

https://stackabuse.com/matplotlib-box-plot-tutorial-and-examples/

2. SciPy

https://docs.scipy.org/doc/scipy/reference/stats.html

3.NBA

https://www.nba.com/stats/