Las Vegas Hotel/Casino Data Analysis

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Overview

- https://archive.ics.uci.edu/ml/datasets/Las+Vegas+Strip
- Dataset contains TripAdvisor review statistics for 21 hotels in Las Vegas
- Other variables include hotel data, including:
  - Official star rating
  - Reason for travel
  - Free internet
  - Pool
  - Reviewer origin country
  - Member years

Research Question & Hypothesis

- Need to narrow down a focus with so many variables available
- "Traveler type" column
  - Families, friends, solo, business, couples
- **Research question: How does the traveler type affect the reviews left for hotels/casinos in Las Vegas?**
- Hypothesis: Families and solo travelers will tend to have lower review scores than couples and friends.

Why is this important?

- Hotels profit off positive reviews
- Associations with certain amenities will draw different traveler types
- A model that can accurately predict satisfaction can help hotels improve the quality of stay for all visitors

Planned Data/Methods

- Check Boxplots
- Correlations and Pair Plot
- Separate Data
- Comparing Predictions

Schedule

- **Part 2: Due 21 October 2021**
  - Data analysis
    - Done by Oct. 14
  - Report
    - Done by Oct. 19
    - Decide who writes what part as we have more information and work together more
  - Presentation
    - Done by Oct. 21
    - We each do one slide of results/graphs
- **Part 3: Due 16 November 2021**
  - Paper draft
    - Finished by November 9
    - Introduction: Peyton
    - Data and methods: Christopher
    - Results: Brandon (Christopher + Peyton as needed)
    - References: Peyton
- Demonstration
  - Date: tbd
    - Walk/talk through of code/results

Schedule

- **Part 4: Due 16 December 2021**
  - Completed research paper
    - Done by Dec. 13
      - Discussion (by who tbd)
      - Conclusion (by who tbd)
  - Presentation
    - Work on leading into Dec. 16
  - Demonstration
    - Date tbd
      - Walk/talk through
  - Put everything on github
    - Do as we go, everything completed by Dec. 16
      - Final presentation slides
      - Work plan document, listing what was completed/not completed and by whom
      - Final paper
      - Code
      - Reports
      - Data