

Bellabeats Case Study



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Overview

Bellabeat is a high-tech company founded by Urška Sršen and Sando Mur that specialized in health-focused smart products. Their smart products include an app, fitness tracker, wellness watch, and water bottle. Urška has tasked us to analyze data from non-Bellabeat smart devices to gain insight on how consumers are using their devices and how that information can be used to inform Bellabeat's marketing strategy.

Business Task:

Analyze Fitbit data to gain insight on consumer use and help guide marketing strategy.

Stakeholders

- Urška Sršen
- Sando Mur
- Executive Team
- Marketing Analytics Team

Understanding the data

The dataset used in this case study was generated by 30 respondents to a distributed survey via Amazon Mechanical Turk between March 3, 2016 and May 12, 2016. The users consented to the submission of personal tracker data, including minute-level output for physical activity, heart rate, and sleep monitoring.

Source: <https://www.kaggle.com/arashnic/fitbit>

License: CC0: Public Domain

Prepare the data

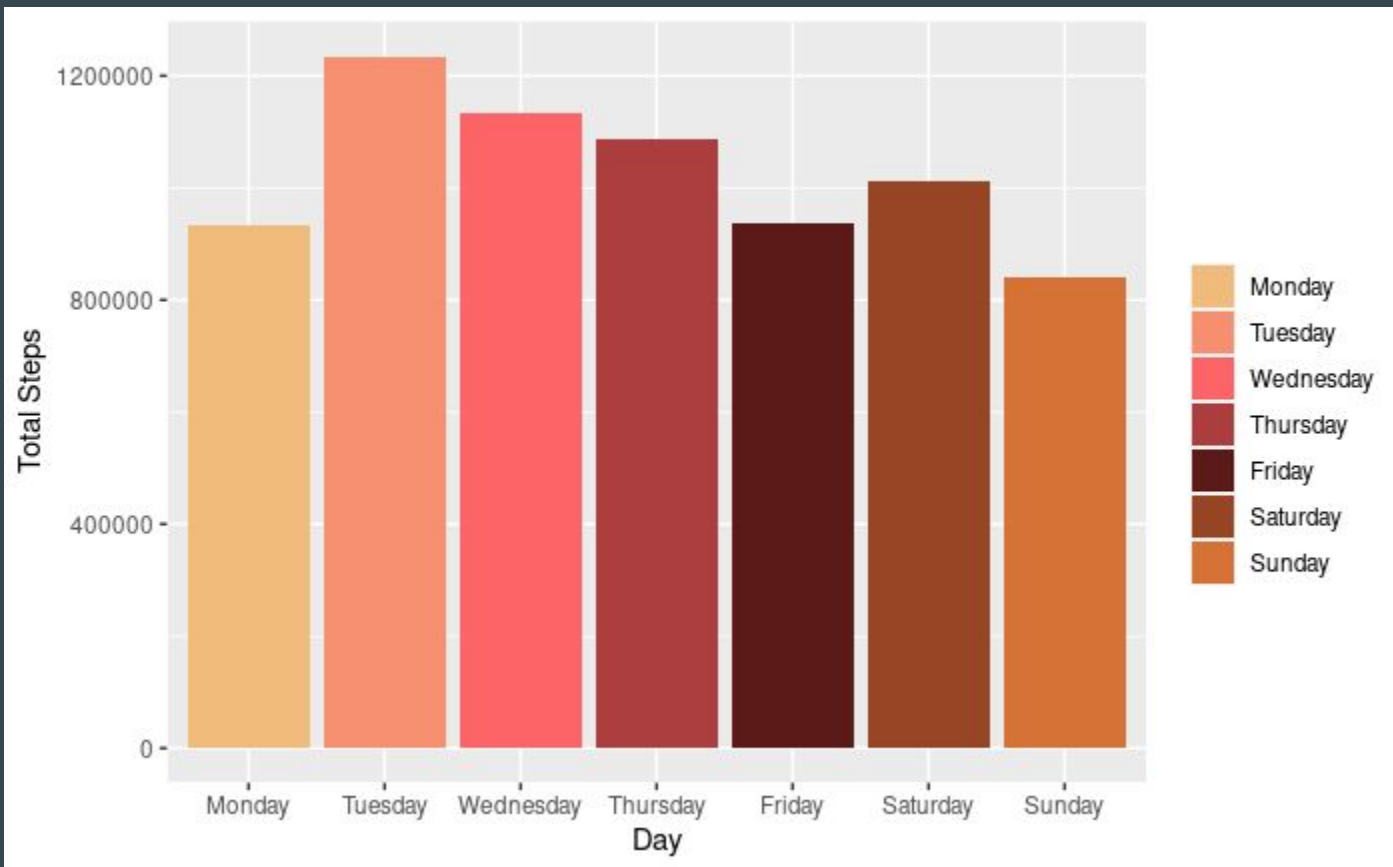
- **Check for unique values.**
- **Some NAs were dropped when necessary**
- **Redundant duplicates cleaned**
- **New column created to identity “day of week”**
- **Daily activity and sleep tables merged by unique user Id**

Analysis

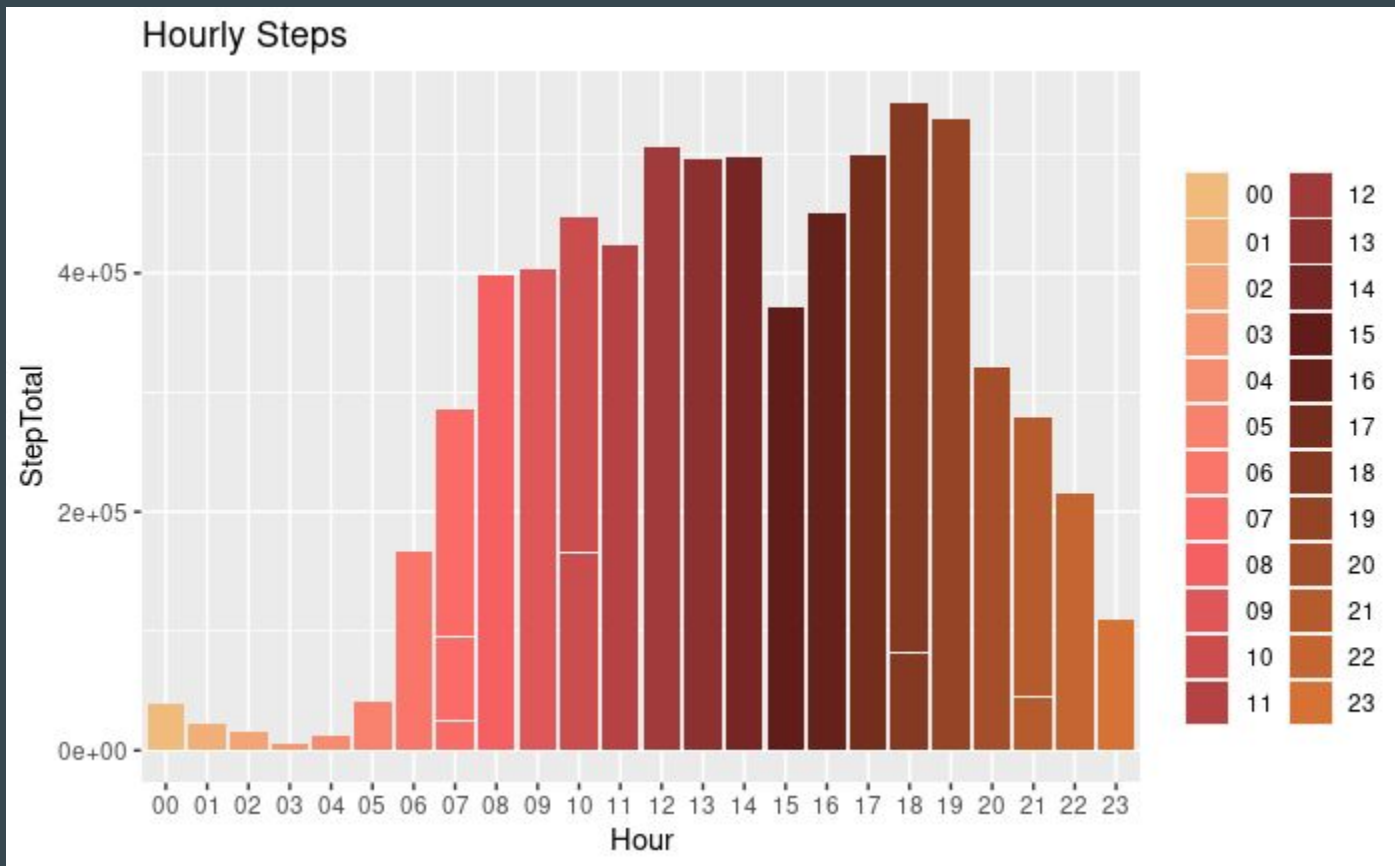
- **There is an obvious correlation between the distance/steps and calories.**
- **The respondents were most active between Tuesday and Thursday.**
- **The most sedentary minutes were recorded between Tuesday and Thursday.**
- **Not enough data exist for the weight log. Only 8 respondents.**
- **The respondents were most active between 5-7pm each day.**

Visualizations

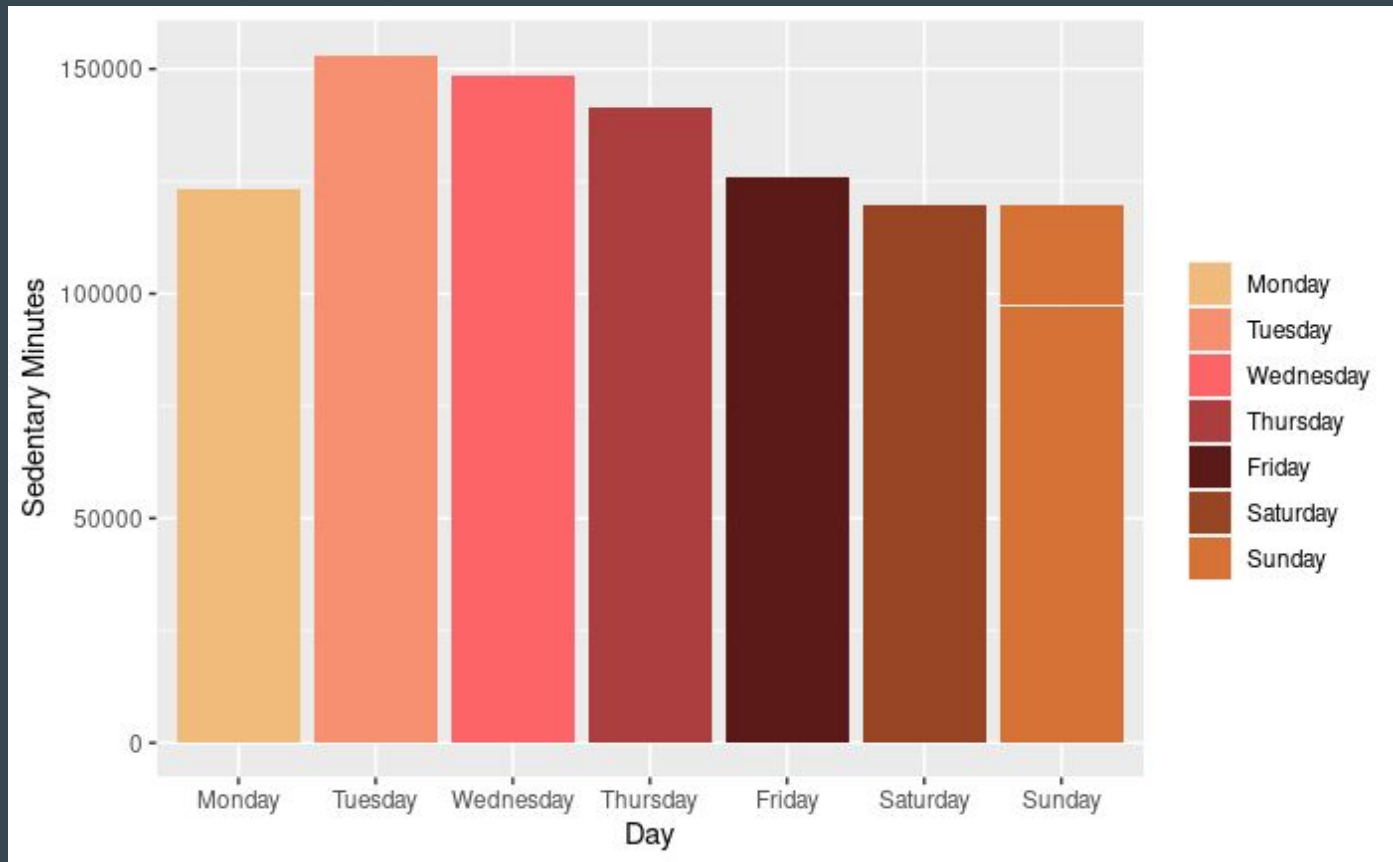
Activity per day of the week



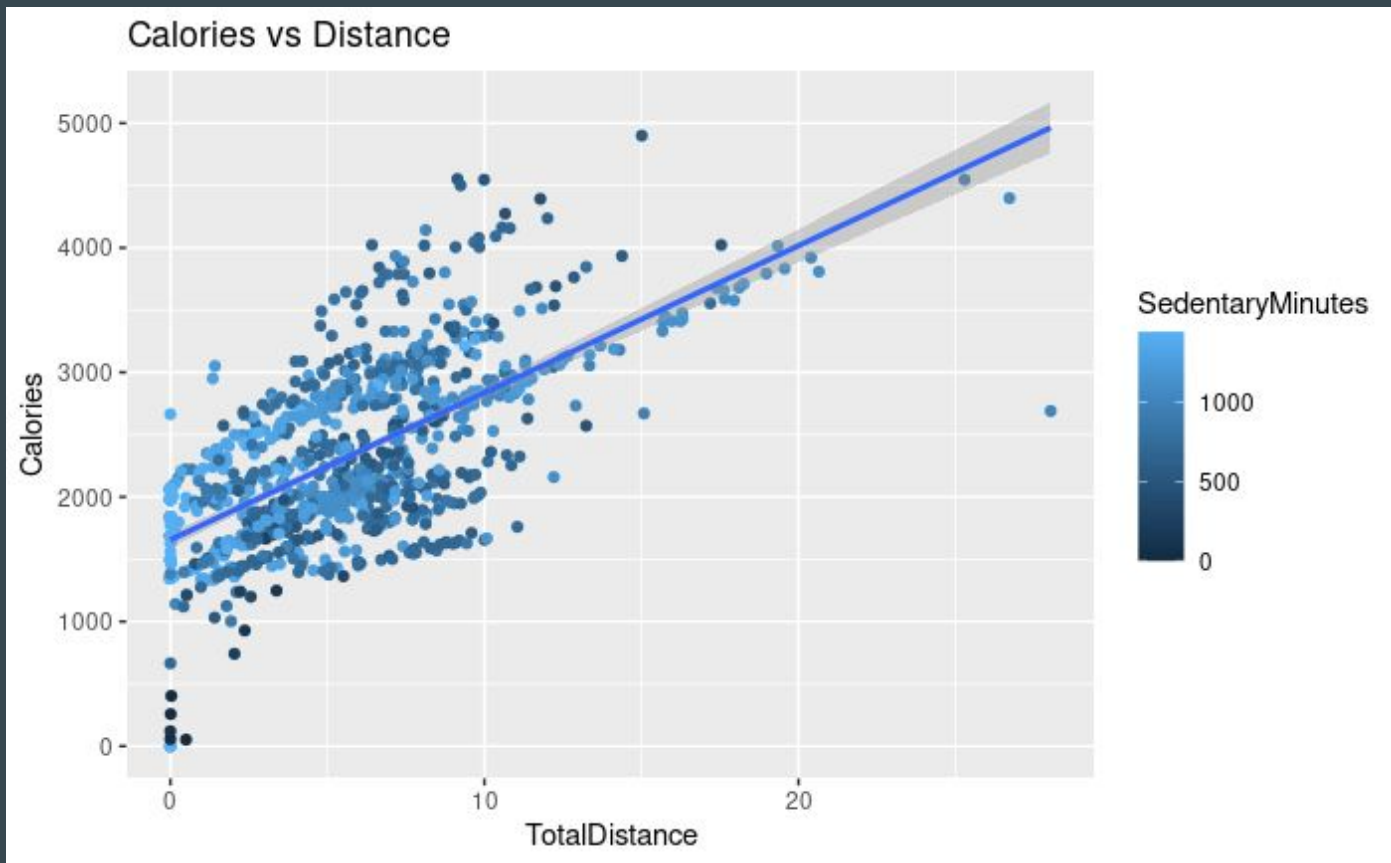
Activity per hour of day



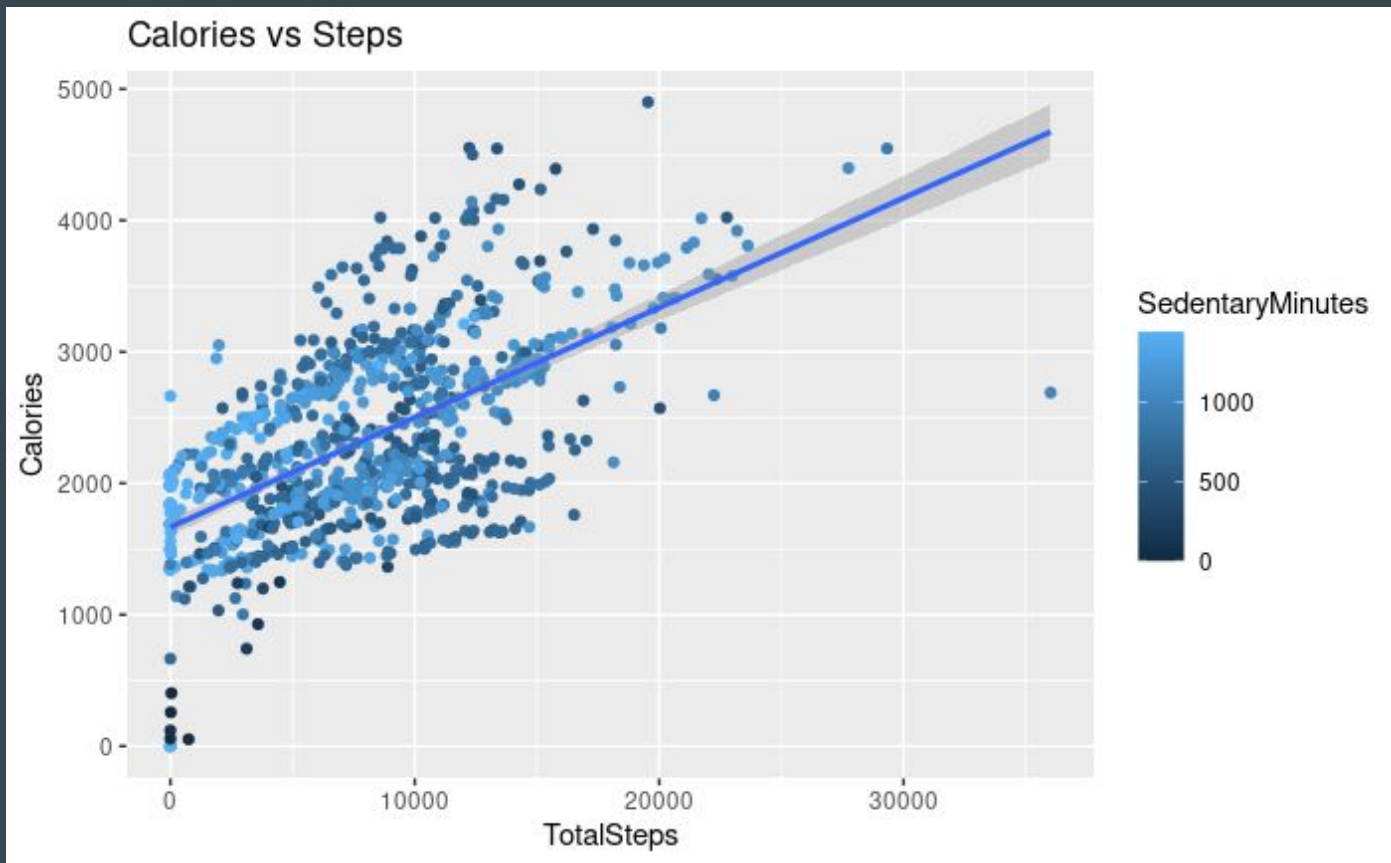
Days of sedentary activity



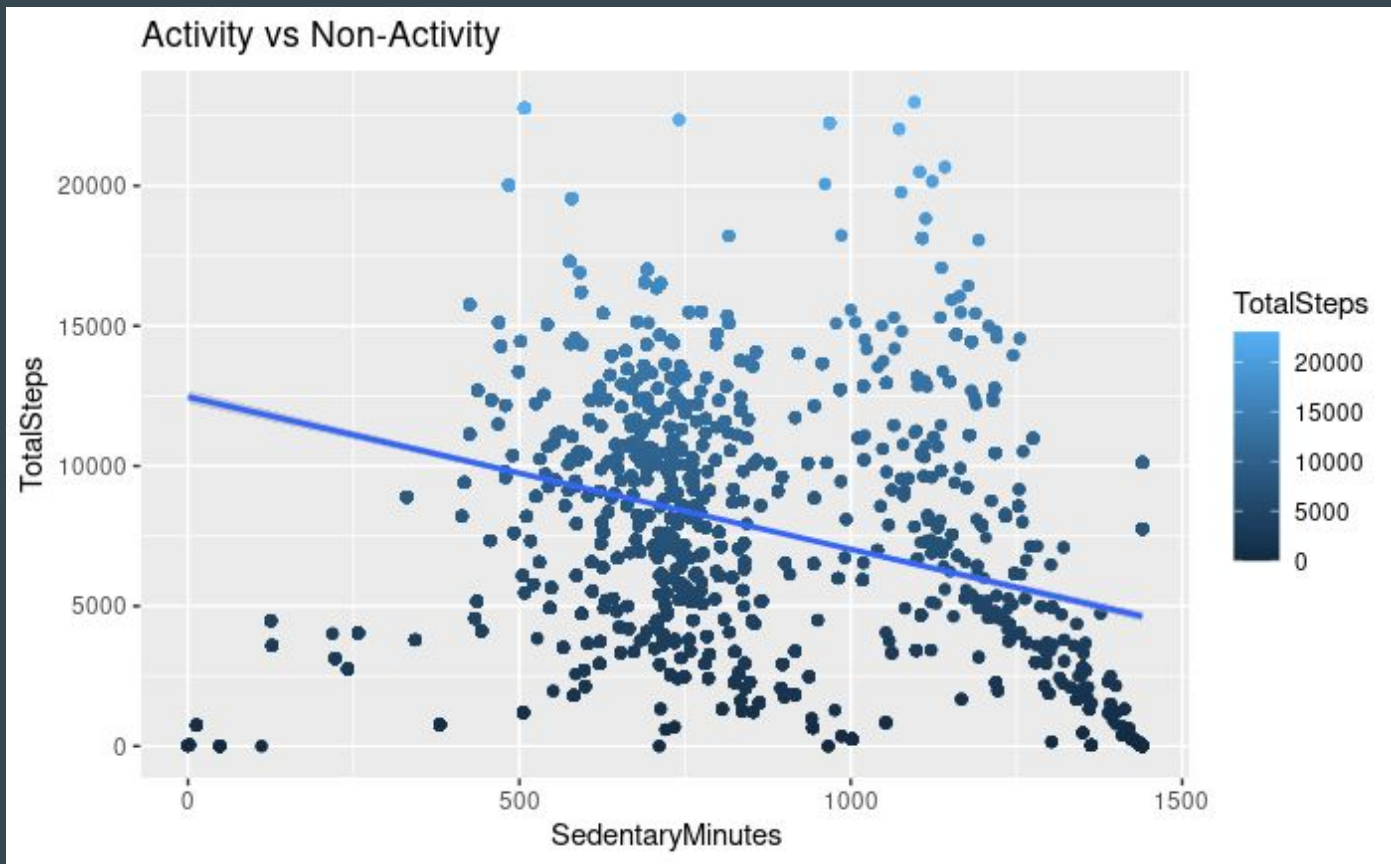
Correlation of Calories and Distance



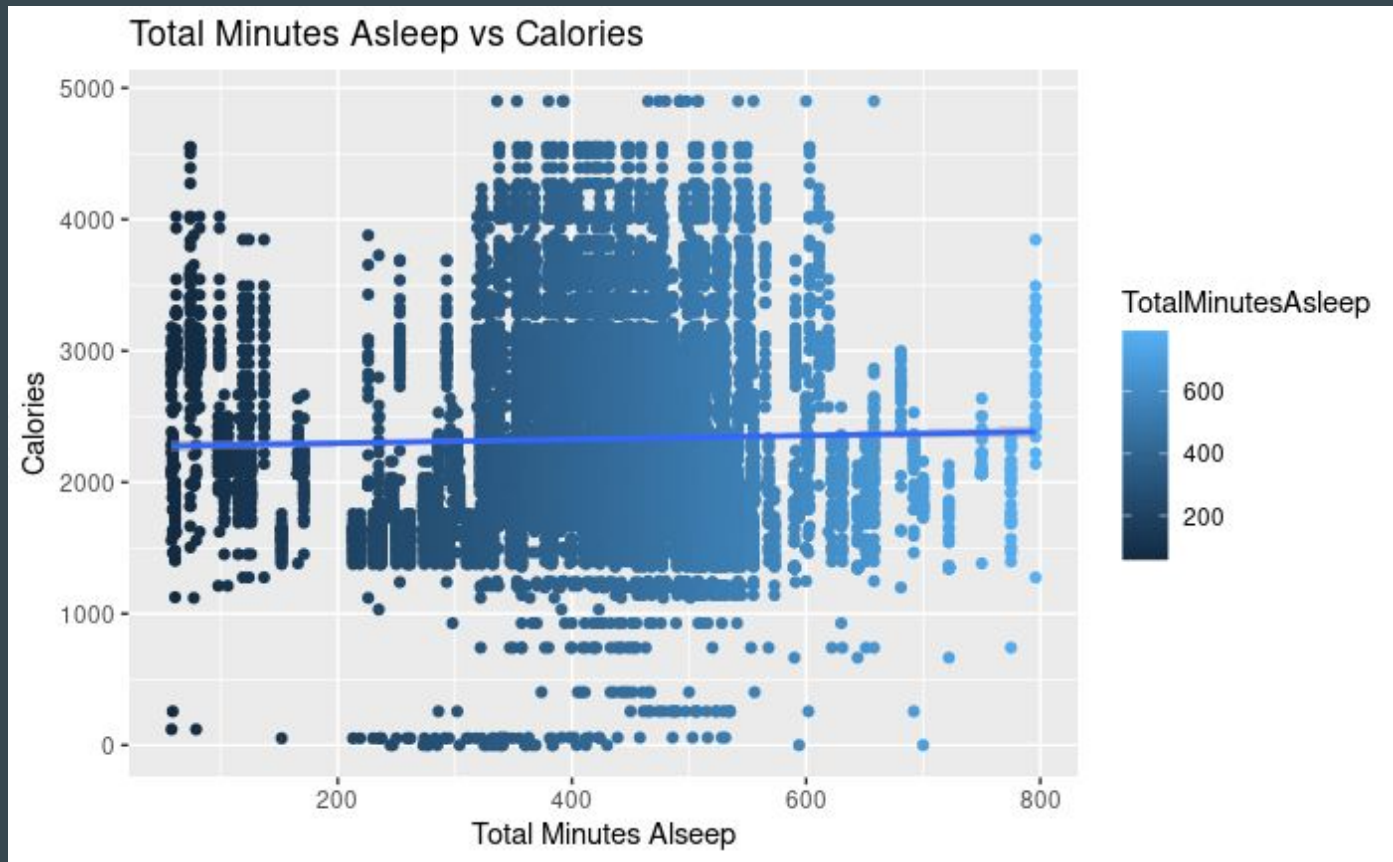
Correlation of Calories and Steps



Correlation of sedentary minutes and steps



Correlation of activity and sleep



Findings and Recommendations

- The marketing team can show the correlation that less sedentary activity is healthier and results in more calories burned.
- Not enough data around weight since the logging was manual. Is there an opportunity for more smart scales sales? Or have a reminder to input weight manually for tracking in the app. More data needed.
- The sleep data does not seem to correlate positively with more activity or less.
- The app can be used to set alarms or reminders to be "active" when a threshold of sedentary minutes is met to encourage activity.