

Bellabeat Case Study

Darren Nakamura





Ask - What is the Business Task?

Bellabeat wants to analyze usage data from fitness tracking products and use the insights to inform a marketing strategy that will help to grow its user base for its range of health and wellness products.



Prepare - What Data Source am I Using?

The dataset used in this analysis is [FitBit Fitness Tracker Data](#), a public domain dataset available on Kaggle.



Process - How did I Perform Data Cleaning?

- The FitBit data was loaded onto BigQuery
 - BigQuery would not automatically parse the datetime data upon upload as initially formatted
 - Datetime data was loaded as a string, then parsed as datetime later
- Datetime data cleaning was done using SQL queries, example below

```
1  -- Create clean_date_time column
2  ALTER TABLE `curious-scarab-446715-k6.fitbit_data.weight_log_info`
3  ADD COLUMN clean_date_time datetime
4
5  -- Parse string into datetime
6  UPDATE `curious-scarab-446715-k6.fitbit_data.weight_log_info`
7  SET clean_date_time = PARSE_DATETIME('%m/%d/%Y %I:%M:%S %p', date_time)
8  WHERE 1 = 1
```



Analyze - What did my Analysis Show?

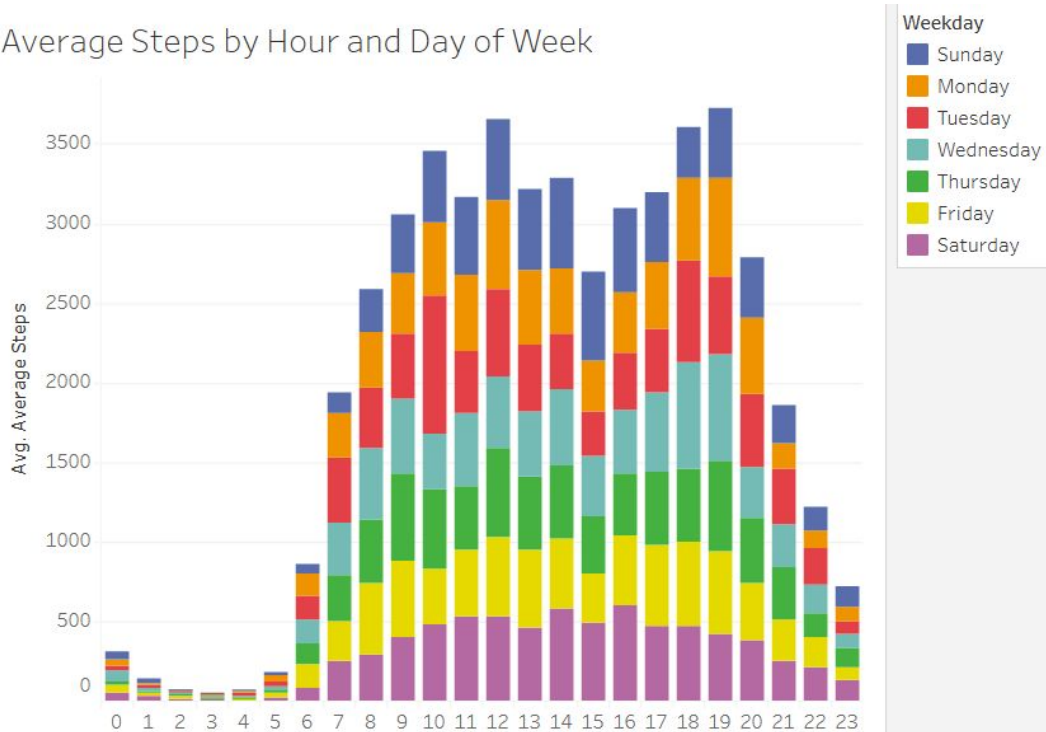
- By averaging step counts across all users, we can see what time of day users are most active
- Users are most active between the hours of 07:00 and 21:00
- Users are more active on weekdays than on weekends
- There is a dip in activity around 15:00
- This dip is not observed on weekends
- SQL example query below

```
1 SELECT clean_date_time, ROUND(AVG(steps), 1) AS average_steps
2 FROM `curious-scarab-446715-k6.fitbit_data.hourly_steps`
3 GROUP BY clean_date_time
4 ORDER BY clean_date_time
5 LIMIT 1000
```



Share - What Visualizations Support the Analysis

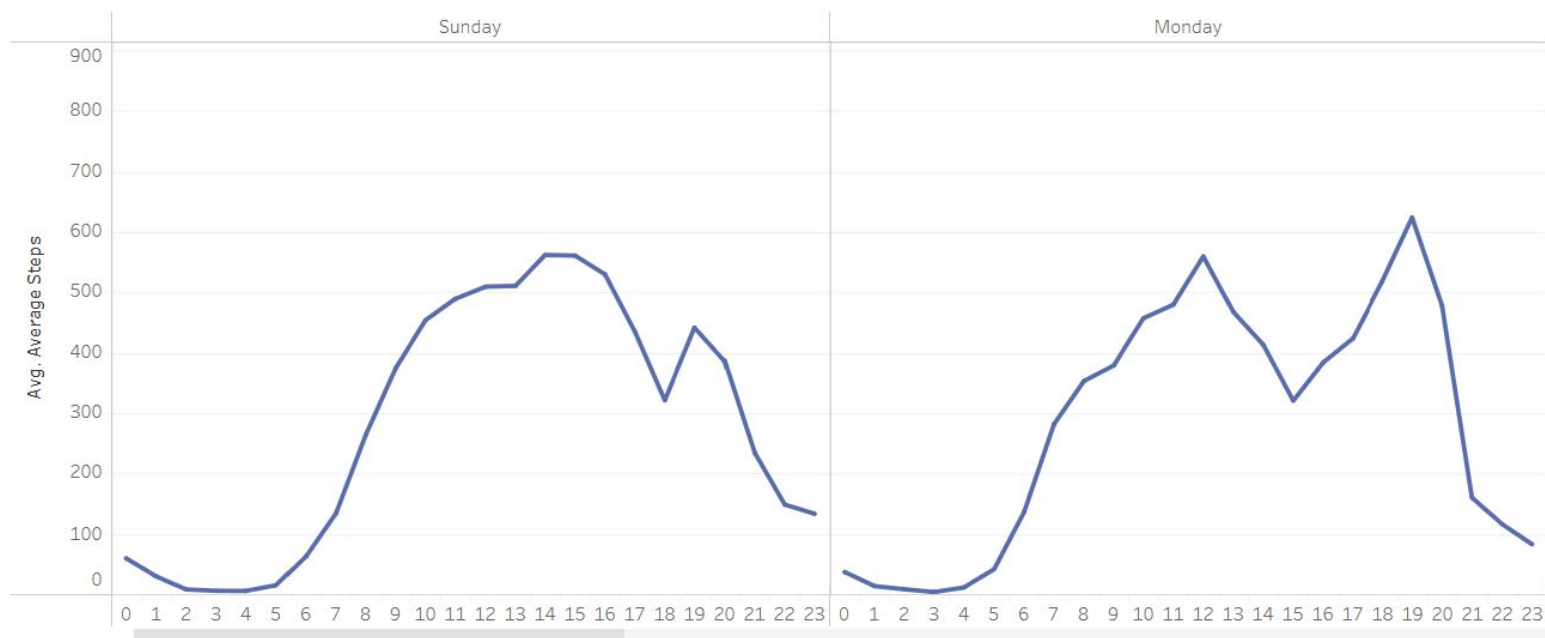
Average Steps by Hour and Day of Week





Share - What Visualizations Support this Analysis

Average Steps by Hour and Day of Week





Act - What Recommendations can we Take Away?

- The prime time to advertise to potential Bellabeat customers is the 15:00 hour on weekdays
- Secondly, we can advertise to potential Bellabeat customers during the 07:00 hour on weekends
- Potential customers are more likely to be at rest, preparing for physical activity during this time