Bellabeat Case Study: Analyzing Habits of Highly Active Users

Capstone Project by Khristopher Jorden 7/15/2025

Business Objective

- **Business Goal:** Analyze user behavior data to uncover habits of highly active users and provide recommendations to improve engagement for Bellabeat wellness app.

    Guiding Questions:

    - ■ **What habits are most common among highly active users?**
    - ■ **How can Bellabeat use this insight to better support users and boost app engagement?**

- **Focus:** Analyze habits of highly active users (10,000+ steps/day).

- **Dataset:** Daily Fitbit activity and sleep data from 33 users.

- **Tools Used:** Excel, Google Sheets

    Stakeholder: Urška Sršen, Bellabeat's co-founder and Chief Creative Officer

Cleaning the Data

- Removed unnecessary columns and empty rows.

- Standardized date and time formats.

- Merged activity and sleep data by user ID.

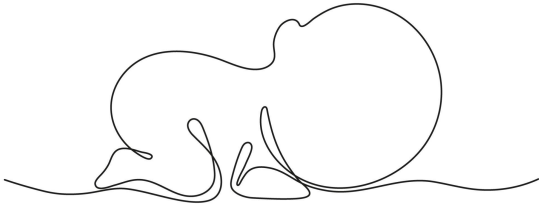- Created a new column to label users as "Highly Active" (10,000+ steps/day).
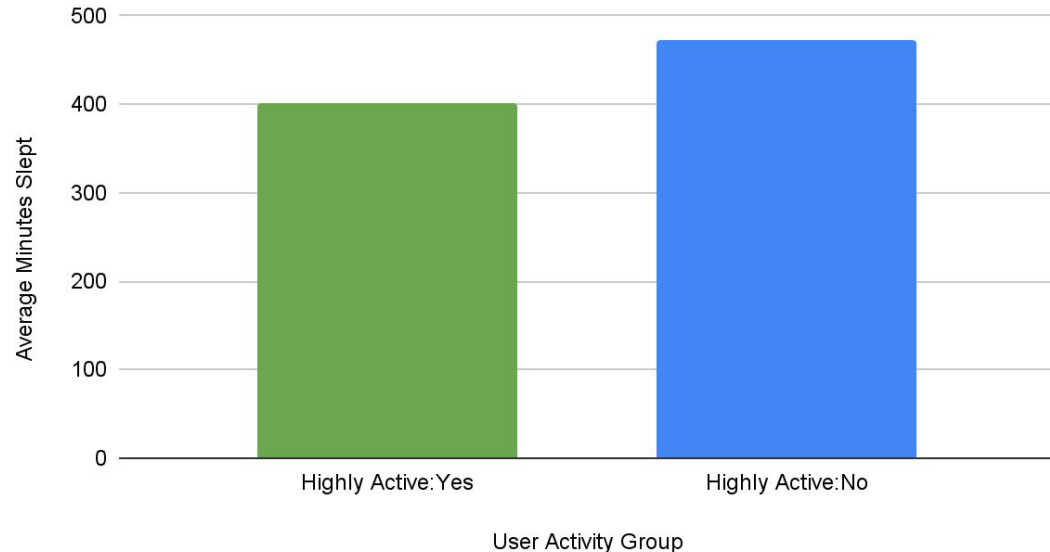
Key Findings: Sleep Behavior

Non-highly active users averaged **~472 minutes** (≈7.9 hrs) of sleep per night.

Highly active users averaged **~401 minutes** (≈6.7 hrs).

Surprisingly, more active users **slept less** on average.

Average Sleep Duration: Active vs. Non-Active Users
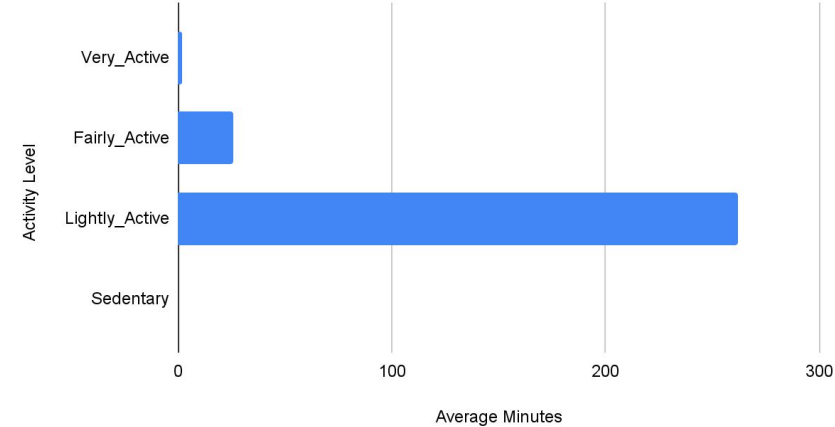
Key Findings: Activity Patterns

Majority of highly active users consistently reached **10,000+ steps per day**.

Many had **higher active minutes** and **fewer sedentary hours**.

Non-active users had **more variability** in daily step counts.

Patterns suggest active users may follow a **more consistent daily routine**.

Average Daily Activity Minutes (Highly Active Users)

Key Findings: Engagement Trends

- Most highly active users logged data **more consistently** than others.

- Engagement was strongest among users with **regular sleep and activity patterns**.

- Users with erratic routines or fewer active days logged data less often.

- Suggests a link between physical activity and **continued product use**.

Conclusion & Recommendations

- Bellabeat should **encourage** users to develop consistent routines.

- **Promoting** regular activity may improve product engagement.

- Consider **developing** features to support sleep tracking and habit building.

- Use active user data to **personalize** fitness goals and reminders.