

Bellabeat case study


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Business task

- Analyze Smart-device usage data to identify activity patterns and opportunities for behavior change. Apply the insight to recommend marketing and product strategies for bellabeat Spring
 - Key questions:
 - What trends exist in daily activity?
 - How can these trends inform Bellabeat customers?
 - How can they influence bellabeat's marketing strategy?
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Data & Cleaning

For this case I've used **FitBit Fitness Tracker Data** from Kaggle, with data from April-2016 to May-2016

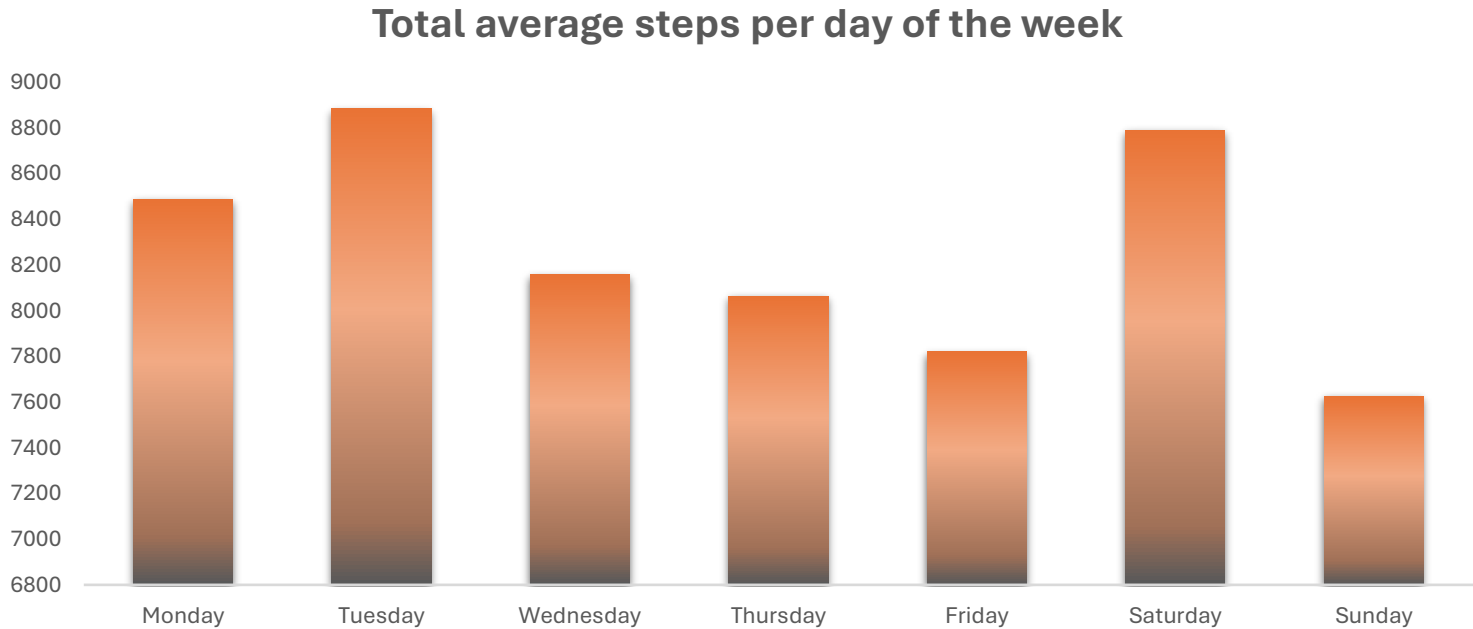
Limitations:

- Dataset does not include demographic information such as gender, so the user are not necessarily only women
- Some variables may require formatting and cleaning before the análisis
- FitBit data used as a proxy and may not fully represent Bellabeat user's behavior

From the dataset were removed non-wear days (72 records)

Key findings

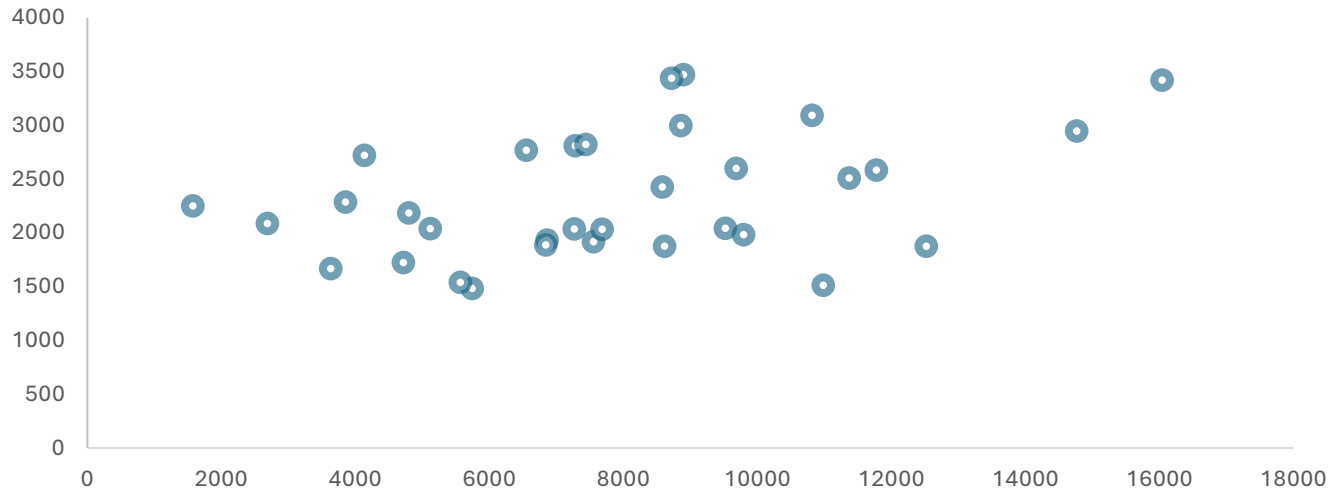
Total Average steps	Total average calories	Total average sendentary (Minutes)	Total average active (minutes)
8271.47	2353.33	953.98	246.42



Daily User Activity Statistics

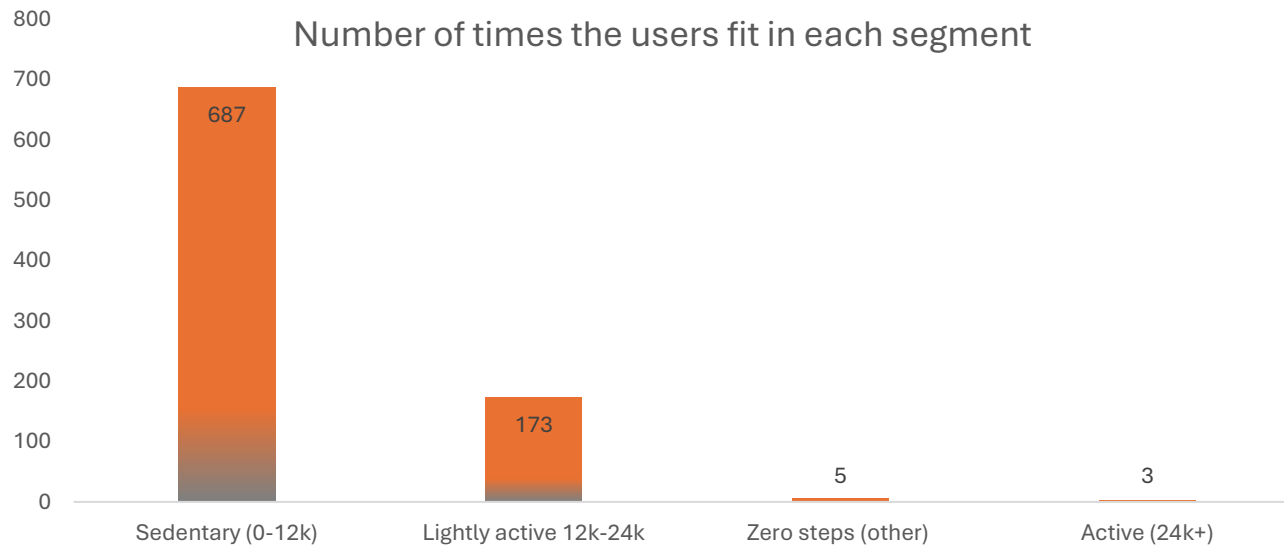
- Take 8,271 steps on average
- Burn 2,353 calories each day
- Spend 954 minutes being sedentary
- Record 246 active minutes daily

Steps VS Calories



The graph indicates that the majority of individuals engage in moderate walking; however, the number of calories burned differs based on factors such as incline, terrain type, and walking pace.


Number of times the users fit in each segment



The majority of individuals typically maintain a sedentary lifestyle, averaging less than 12,000 steps daily.



Recommendations

- Offer Spring bundled with 1–3 months of Premium to let customers explore the full ecosystem, then use loyalty pricing like renewal discounts or annual plan incentives to boost retention.
 - Use Spring to send gentle prompts during long inactivity, encouraging small goals like extra steps or short movement breaks alongside hydration tracking to foster consistency.
 - Launch weekly themed challenges with daily reminders (hydration + light activity) and offer Sunday rewards (discounts/points) for completing goals such as meeting hydration targets with Spring and maintaining a walking streak.
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Next steps

- Validate findings using real bellabeat data, specially hydration frequency and reminder adherence
- Track key KPIs such as sedentary minutes reduction, increase in active minutes and premium membership conversion
- Incorporate demographic data to enable more personalized marketing strategies