



Fitbit Users Behaviour Analysis

Guiding Marketing Strategy

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Last Updated: September 24th , 2025

Scenario

You are a **junior data analyst** working on the **marketing analyst team at Bellabeat**, a high-tech manufacturer of **health-focused products for women**. **Bellabeat** is a successful **small company**, but they **have the potential** to become a **larger player** in the **global smart device market**. **Urška Sršen, cofounder and Chief Creative Officer of Bellabeat**, believes that **analyzing smart device** fitness data could help **unlock new growth opportunities** for the company. **You have been asked to focus on one of Bellabeat's products and analyze smart device data to gain insight into how consumers are using their smart devices.** You will **present your analysis** to the Bellabeat executive team along with your **high-level recommendations for Bellabeat's marketing strategy**.

Objective

- To gain insight into **how consumers** use **Fitbit smart devices**
- **Time period:** April 12, 2016 – May 12, 2016
- **Focus:** **Segmenting Fitbit's users** by **activity level**, **correlating their behavior** with key metrics like calories burned, **and identifying weekly patterns**

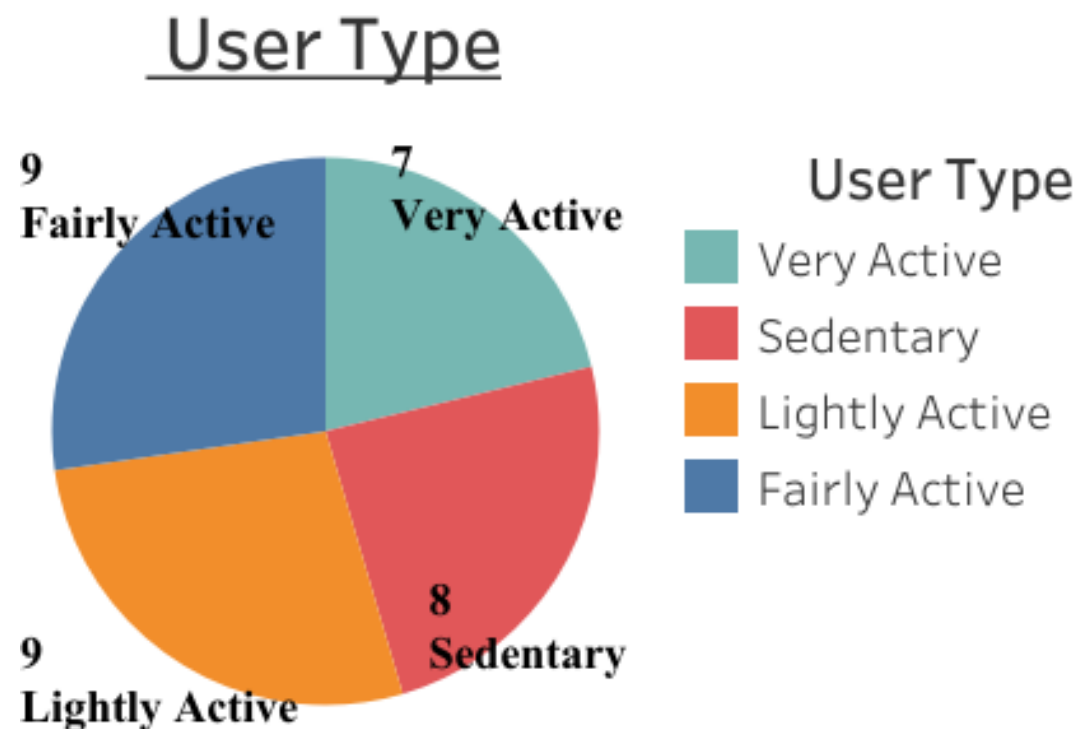
Data Summary

- **Data source:** Fitbit Dataset from [Kaggle](#)
- **Size:** ~ 1000 rows , 16 columns
- **Prepared in R :** Using [readr](#) , [janitor](#) , [dplyr](#) , and [ggplot2](#) libraries
- **Columns used :** [Total Steps](#) , [Calories](#) , [Spend minutes types](#) and **more...**
- The [analysis](#) was based on a [dataset of 33 users](#), with each user's data collected over a [31-day period](#)
- Data was **cleaned** before importing into [Tableau](#) for visualization

User Segmentation

INSIGHTS :

- The **majority of users** are **not very active**.
- The **largest user segments** are “**Lightly Active**” and “**Fairly Active**”.

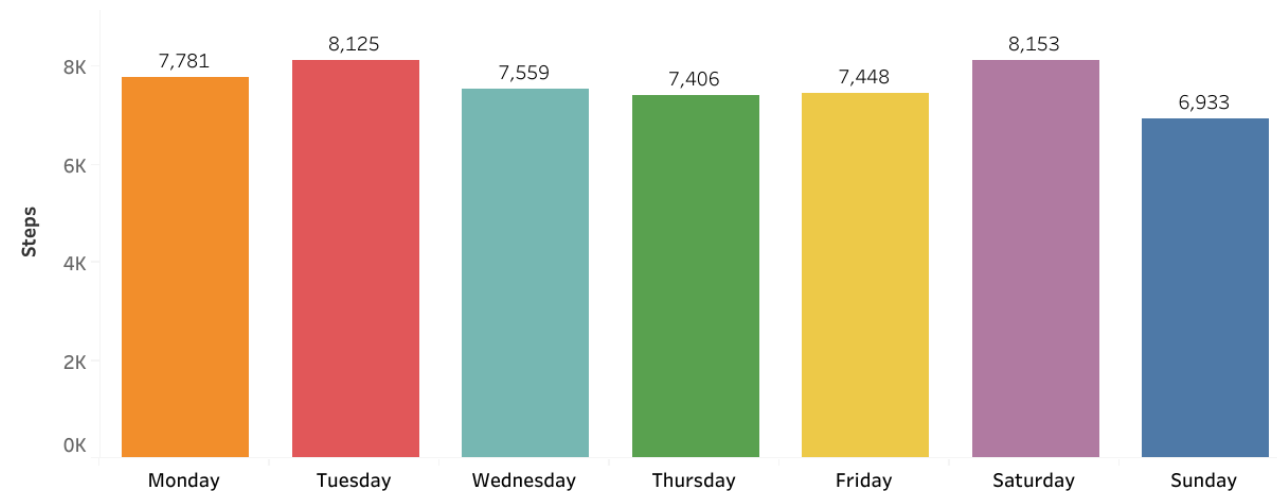


Weekly Activity Patterns

INSIGHTS :

- **Tuesday and Saturday** are the **most active days** for users, with **over 8,100 steps**.
- There is a **significant drop** in activity **on Sunday**, with taking of **only 6,933 steps**, making it **least active** day of week

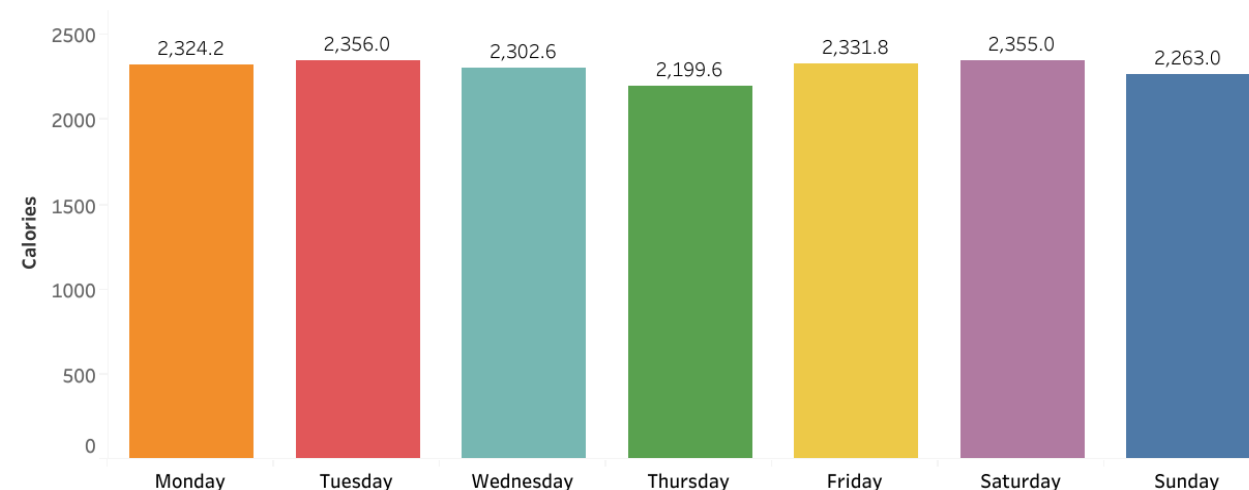
WeekDays Activity



INSIGHTS :

- **Average calories burned** remains remarkably **stable** throughout the **entire week**.
- **Thursday and Sunday** show a **small dip** in calories burned compared to the **other days**.

WeekDays Activity

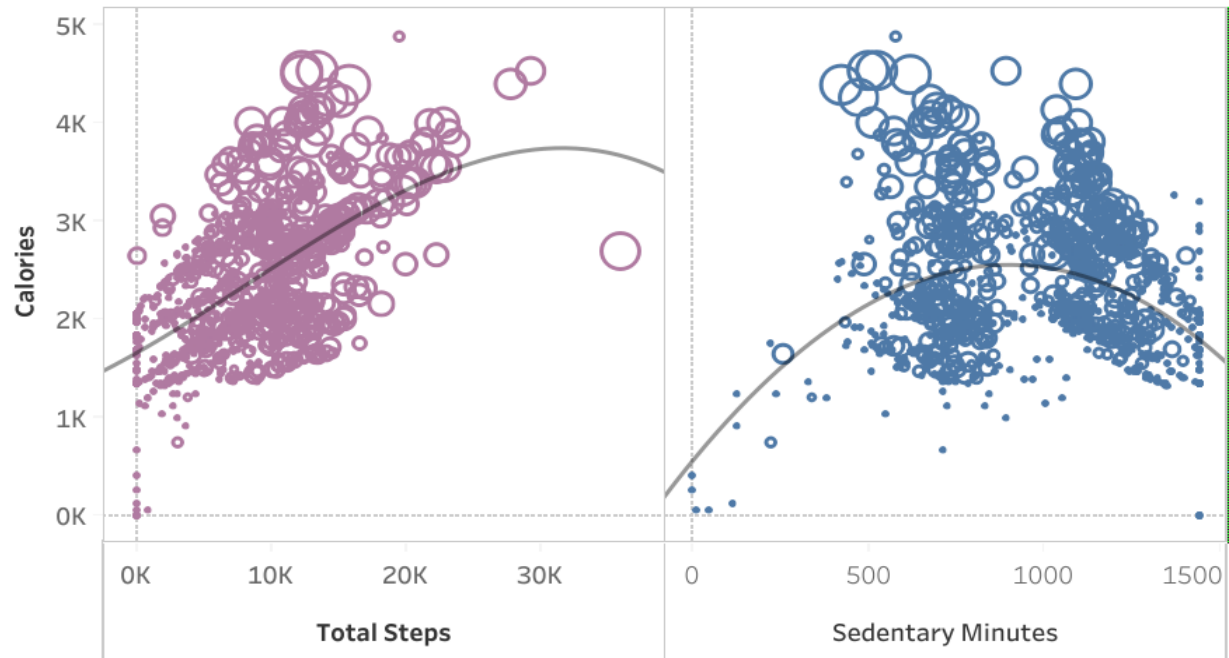


Relationship Between Activity and Calorie Burn

INSIGHTS :

- There is a **strong positive correlation** between **total steps** and **calories burned**. As **steps increase**, so do **calories**.
- In contrast, there is a weak or **slightly negative correlation** between **sedentary minutes** and **calories burned**.
- **Physical movement**, such as **taking steps**, directly **increases calorie burn**, while a **sedentary lifestyle** does not.

Calories Burned with Activity

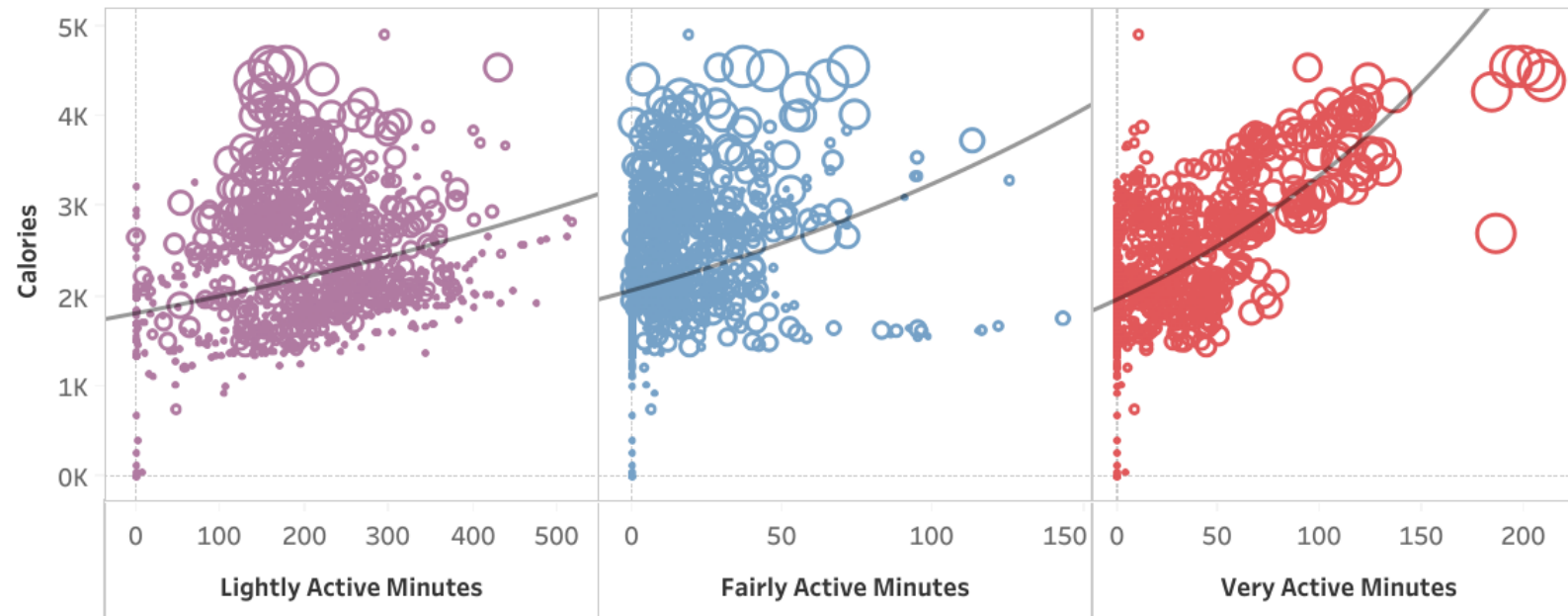


High-Intensity Activity Drives Calorie Burn

INSIGHTS :

- The **relationship** between **calories burned** and **minutes of activity** is **directly tied** to the **intensity of the activity**
- While **light** and **fair** activity **contribute to calorie burn**, **very active minutes** show the **steepest increase** in **calories burned**.
- This visualization provides **clear evidence** that **high-intensity activity** is the most **efficient way** to **burn calories**.

Calories Burned with Minutes Types



Recommendations For Bellabeat

- **Shift marketing focus to "wellness," not just "fitness."** The **majority of users** are "Lightly Active" or "Sedentary", presenting a **prime opportunity** to market to a broader audience **focused on overall well-being**.
- **Implement a targeted "Sunday Motivation" campaign.** With user **activity consistently dropping on Sundays**, Bellabeat can use the app to send **targeted reminders** and **challenges to encourage engagement** on the least active day of the week.
- **Enhance the in-app experience to reward high-impact activity.** Since "Very Active Minutes" have the **strongest correlation with calories burned**, the **app's interface** should **prioritize** and **reward high-intensity efforts** over simple step counts.



Thank you!