BELLABEAT MARKET ANALYSIS REPORT

1. A clear summary of the business task

There is a need to understand our product consumers to rule the market. I will be analyzing smart device data to gain insight into how consumers are using their smart devices and how this can be used to improve market strategies.

2. A description of all data sources used

I obtained the dataset from Kaggle: FitBit Fitness Tracker Data (CC0: Public Domain, which was made available through Mobius). The data is unbiased. It contains records of how the users use their smart devices and the data that the users kept track of.

3. Documentation of cleaning and manipulation of data

I cleaned the obtained data using R. A detailed explanation of the cleaning process can be found in the gdac_proj_1.html file. The diverse packages available for cleaning data informed my choice.

4. A summary of the analysis

Data analyzed was collected from 33 individuals represented by ID numbers. Following the cleaning process, analysis shows that >60% of the average total distance covered daily is done being lightly active.

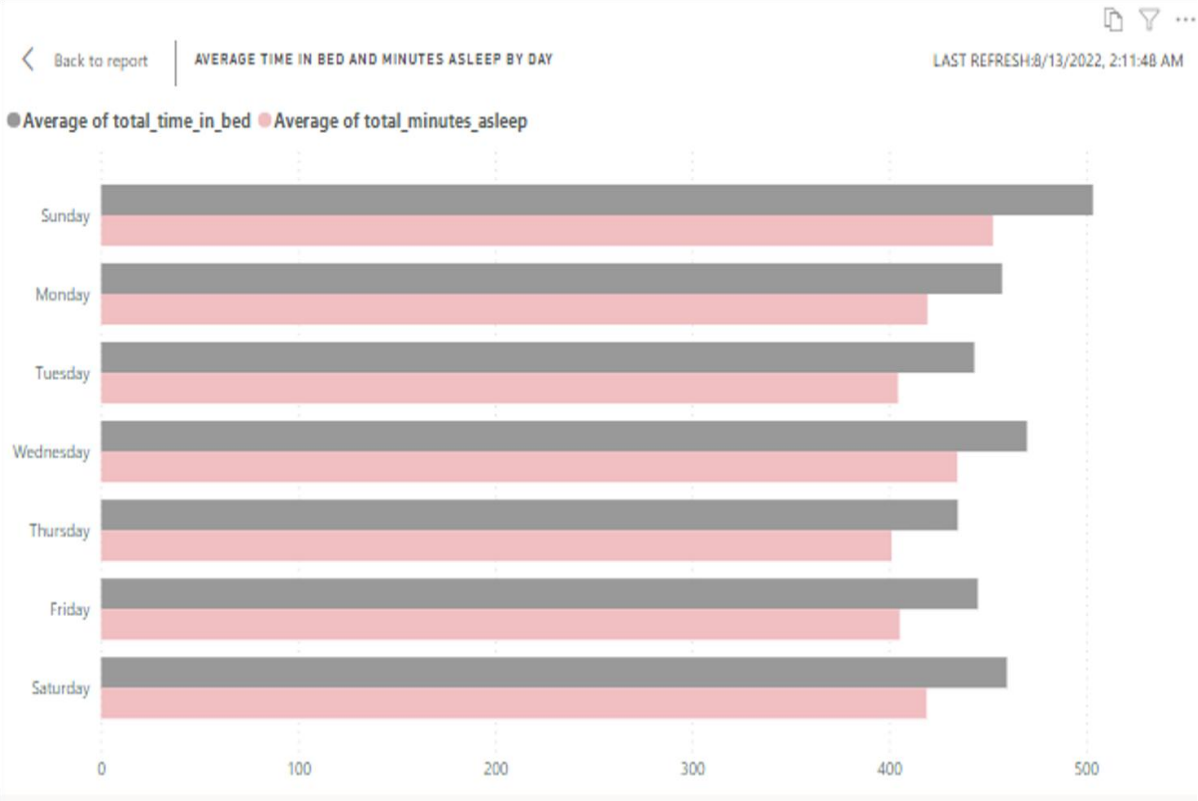
A graph of calories against total steps showed a positive correlation between the variables. Total steps per day ranged from 0 to 36,019 steps. An average of 7,638 steps per day is taken amongst the individuals.

Of the 33 individuals, all 33 kept track of their daily activities, 24 individuals kept track of their sleep records, only 42.4% of the individuals (14) kept track of their heart rate and just 8 (<25%) individuals kept track of their weight info over the time period for which the data was taken (12 April, 2016 to 12 May, 2016).

5. Supporting visualizations and key findings

Most average steps taken by weekday is 8,152 steps on Saturdays while the least steps are taken on Sunday (6,933 steps).

On the average, significantly more time is spent in bed (503 minutes) on Sundays compared to any other day.



6. Top high-level content recommendations based on analysis

- An awareness of the efficient use of the device and what data it is capable of reading and recording thus ensuring its use is optimized by individuals.
- There should be daily reminders prompting individuals to attain a minimum target number of steps which coincides with each weekday's average or based on the amount of calories they want to burn daily.
- Special features like music or rhythms that aid rest can be incorporated into the device to aid rest and make the time spent on bed be more efficient in bringing about sleep.

I could also have analyzed which periods of the day had more activity, steps taken and calories burnt from the other datasets given.

More details on the individuals as well as a larger individual pool could have helped ensure recommendations were more tailored based on factors like occupation, body-size, age etc.