

DS3500 Project Proposal: Group 16

Fitbit Insights: A Comprehensive Data Dashboard for Health and Wellness

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Significance

Impact of Project: everyone cares to some degree about their health and wants to see what they can do to improve, to detect general population trends in the public health realm

Data: <https://www.kaggle.com/datasets/arashnic/fitbit>

Goals

Our primary objective is to create an interactive dashboard using fit bit data. Each of the CSV files in the Kaggle dataset we plan to use have an ID column, which will allow us to create a log-in for users to see their personal fitness summary statistics. The parameters we have access to include data on daily calories burned, daily steps taken, heart rate, amount of sleep everyday, and weight.

Key Features:

1. **Time Series Visuals**: Enable users to view time series charts by week or month for any of the available data variables. This will help users understand their progress over time and identify patterns in their behavior.
2. **Correlation Exploration**: Allow users to investigate the relationship between any two data variables, which can reveal interesting connections and help them make informed decisions about their fitness and health goals.
3. **Comparison with Similar Demographic Groups**: Empower users to compare their performance with people of the same age and gender for any data variable by providing:
 - a. Information about the healthy range for the selected variable.
 - b. A percentile graph displaying how the user's performance compares to others in their demographic group.
 - c. An explanation of the percentile, which clarifies its significance and potential implications.
4. **Health Risk Assessment**: Utilize heart rate data to identify if the user is at an increased risk for certain health conditions. Provide information on thresholds for common diseases and offer personalized feedback on areas for improvement or continued focus.