CASE STUDY

Motive

Analyze Fitbit fitness tracker data to deliver marketing and business solutions to WeFit and its subsidiaries

Company Background

WeFit was founded by a group of Indian friends, Rohit and Anjali Shah, who were passionate about fitness and wanted to create a supportive, welcoming community for people of all fitness levels. They started out as a small gym or fitness studio in a bustling city neighborhood, offering a variety of classes and training programs that were designed to be inclusive and accessible.

As the company grew, Rohit and Anjali decided to expand their offerings beyond just in-person classes. They started to sell fitness gear, such as weights, exercise machines, and apparel, both in-store and online. They also developed their own line of fitness apps, which were designed to help users track their workouts, set goals, and connect with other members of the WeFit community.

In addition to physical products and digital tools, WeFit also started to offer customized diet plans, created by a team of nutritionists and dietitians. These plans were tailored to the specific needs and goals of each customer, and could be integrated into their overall fitness routine. The company also developed its own line of meal replacement products to be used as part of the diet plans.

As WeFit's online presence grew, the company started to offer virtual classes and training programs that could be accessed through their apps or website. These offerings became particularly popular during the COVID-19 pandemic, when many people were unable to attend in-person fitness classes.

Over time, the WeFit brand became known for its high-quality fitness gear, apps, and customized diet plans. The company built a loyal following among fitness enthusiasts, who trusted and relied on the WeFit brand for all of their fitness needs. WeFit's success and popularity attracted the attention of investors, and the company was able to secure funding from venture capitalists to help it expand and scale its operations.

Thanks to its unique approach to fitness, strong brand, and successful business strategies, WeFit became a unicorn company, achieving a valuation of over $1 billion. Rohit and Anjali were thrilled to have built such a successful business, and they remained committed to their original vision of creating a welcoming and supportive environment for all. They continued to innovate and expand the company, always striving to help their customers achieve their fitness goals and lead healthier, happier lives.

Business Task

Use the Fitbit fitness tracker data to determine some smart device usage trends, how customers can use them, and how they can affect marketing plans so that the Analytic team of WeFit can offer business solutions and add new clients.

Data Used

The data source used for this case study is <u>FitBit Fitness Tracker Data</u> This dataset was downloaded from Kaggle where it was uploaded by Möbius.

The dataset was made available by Möbius to Kaggle.com under the terms of the CC0: Public Domain Creative Common License, which waives all ownership rights in the work and permits unrestricted use of the dataset for performance, distribution, and copying. Furberg, Robert, Brinton, Julia, Keating, and Ortiz, Alexa were the authors who Möbius cited in relation to the Zendo dataset. <u>(See the Source)</u>

These datasets were generated by respondents to a distributed survey via Amazon Mechanical Turk between 03.12.2016-05.12.2016. Thirty eligible Fitbit users consented to the submission of personal tracker data, including minute-level output for physical activity, heart rate, and sleep monitoring. Individual reports can be parsed by export session ID (column A) or timestamp (column B). Variation between output represents use of different types of Fitbit trackers and individual tracking behaviors / preferences.

Business scenario

There are various business problems to which the Analytic team of WeFit have to provide the solution. In this case study we will look at such scenarios and try to provide the solution for these problems.

1. A company called leanfit which is a daughter company of WeFit sells personalized <mark>diet plans</mark> and this company is generating less sales from the last few months and now they want the Analytics team to find some potential customers who are most likely to buy their personalized diet plans for weight loss.

   As we know that before purchasing a weight loss diet plan It is a good idea to consult with a healthcare professional, such as a doctor or registered dietitian, to ensure that it is safe and appropriate for you. It is also important to consider your personal preferences, dietary needs, and lifestyle when choosing a diet plan.

   People of all ages, genders, and body types may choose to purchase a weight loss diet plan. Some people may decide to purchase a <mark>weight loss diet plan</mark> because they are unhappy with their current weight or because they want to improve their overall health. Others may have a specific health condition, such as high blood pressure or diabetes, that can be improved by losing weight. Some people may also purchase a weight loss diet plan as part of a broader effort to improve their physical fitness or to train for a specific event, such as a marathon or a bodybuilding competition. In general, anyone who is interested in losing weight and improving their health may consider purchasing a weight loss diet plan.
   Now we know that If your BMI is 18.5 to <25, it falls within the healthy weight range. If your BMI is 25.0 to <30, it falls within the overweight range. If your BMI is 30.0 or higher, it falls within the obesity range.

Weight loss can also help to lower high blood pressure (hypertension). Losing excess weight can reduce the strain on your heart and blood vessels, which can help to lower your blood pressure. In addition, losing weight can help to improve other factors that contribute to high blood pressure, such as high cholesterol levels, insulin resistance, and inflammation.

Elevated heart rate is associated with elevated blood pressure, increased risk for hypertension, and, among hypertensives, increased risk for cardiovascular disease.If your heart rate exceeds 185 beats per minute during exercise, it is dangerous for you. If you have high blood pressure, it is important to work with your healthcare team to develop a plan for managing your condition. This may include lifestyle changes, such as following a healthy diet and exercising regularly, as well as taking medications as prescribed. Weight loss can be an important part of this plan, and it is often recommended for people with hypertension.

Try to find the customers who are likely to buy this weight loss plan, you are given the fit-bit fitness tracker data, analyze the data and find some potential customers for leanfit .

2. A Company called fitwear which is a daughter company of WeFit.
   FitWear is a company that is dedicated to helping people stay active and comfortable while they work out. The company offers a wide range of fitness-related products, including workout clothes, shoes, and accessories. FitWear's goal is to create high-quality, stylish, and functional products that help people feel good about themselves and their workouts.

   FitWear's product line includes a variety of items for both men and women, including sports bras, leggings, t-shirts, shorts, and more. The company also offers a selection of fitness gear, such as weights, exercise machines, and yoga mats. All of FitWear's products are designed with comfort, durability, and performance in mind.
   FitWear's clothes and gear are popular with people of all fitness levels, from beginners to seasoned athletes. The company has a reputation for producing high-quality products that are made to last, and many of its customers are loyal fans who return to the brand again and again.

   In addition to its physical products, FitWear also has an active online presence, with a website and social media channels that provide customers with inspiration, tips, and resources for staying fit and healthy. The company frequently collaborates with influencers and fitness professionals to promote its products and share fitness-related content with its followers.
   Overall, FitWear is a company that is dedicated to helping people feel good about themselves and their workouts, through the production of high-quality, stylish, and functional fitness-related products.
   Currently they are selling in their stores but now they are going online to sell all the products.

There are likely to be many different types of people who are interested in buying fitness gear online. Some may be individuals who are already very active and looking to upgrade or replace their existing gear, while others may be people who are just starting to get into fitness and looking for affordable equipment to use at home.

A person who is already into fitness may be the one wearing the gear for more than 20 days and recording an average of more than 30 very active minutes. Similarly, if a person wears the gear for more than 20 days and records an average of more than an hour of fairly active minutes, that person can be considered someone who wants to get into fitness.

Try to find the customers who are likely to buy their products, you are given the fit-bit fitness tracker data, analyze the data and find some potential customers for fitwear.

3. A Company called sleepy-nights which is a subsidiary of WeFit.
   Sleepy-Nights is a company that is dedicated to helping people get the rest they need to feel their best. The company has developed a sleep scheduling app that helps people optimize their sleep cycles and get the most out of their time in bed.
   The Sleepy-Nights app is designed to be easy to use and understand, and it can be customized to fit each user's unique needs and preferences. The app includes a variety of features that can help people improve their sleep, such as a sleep tracker, a sleep journal, and a sleep schedule planner.
   Users of the Sleepy-Nights app can track their sleep patterns and habits, and use the data they collect to identify patterns and make adjustments to their sleep schedule. The app also includes resources and tips for improving sleep hygiene, such as recommendations for creating a comfortable sleep environment, setting a consistent bedtime routine, and managing stress and anxiety.
   In addition to its sleep scheduling app, Sleepy-Nights also offers a range of sleep-related products, such as comfortable bedding, white noise machines, and relaxation aids. The company is committed to helping people get the rest they need to feel their best and perform at their best.
   Sleepy-Nights sells subscriptions of their sleep scheduling app and wants to increase their subscribers.This app tracks your sleep patterns, provides personalized sleep insights, and includes a white noise generator to help you fall asleep. They want to target the customers who are not able to maintain their sleep schedules.
   Sleep deprivation is a condition that occurs when you do not get enough sleep or have poor quality sleep. It can have serious consequences for your physical and mental health, as well as your daily functioning.
   Some common symptoms of sleep deprivation include:
   1. Excessive sleepiness and fatigue during the day
   2. Difficulty concentrating and paying attention
   3. Mood changes, such as irritability or depression
   4. Difficulty remembering things
   5. Decreased ability to perform tasks that require alertness, such as driving or operating machinery

Sleep deprivation can have a number of causes, including irregular sleep schedules, stress, and certain medical conditions.Spending more time in bed but getting less amount of sleep due to other unimportant works is also a reason to cause sleep deprivation.
It is important to get enough sleep on a regular basis in order to maintain good health and well-being. How Much Sleep Is Too Much? Sleep needs can vary from person to person, but in general, experts recommend that healthy adults get an average of 7 to 9 hours per night of shuteye. If you regularly need more than 8 or 9 hours of sleep per night to feel rested, it might be a sign of an underlying problem.If you think you may be sleep deprived, it is a good idea to talk to a healthcare provider for further evaluation and treatment.

There is no one specific group of people who are most likely to buy their apps. Some people may use these apps to track their sleep patterns, while others may use them to set alarms or to get tips for improving their sleep quality. Some common groups of people who might use sleep schedule apps include:
1. People who work irregular shifts or have jet lag
2. People who are trying to establish a regular sleep schedule
3. People who are trying to improve their sleep hygiene
4. People who are trying to improve their overall health and wellness

Try to find the customers who are likely to buy their subscription, you are given the fit-bit fitness tracker data, analyze the data and find some potential customers for sleepy-nights.

4. At last WeFit wants its Analytic team to create a dashboard out of this data to present it in front of their management team.
To do that we will only take the daily activity data and try to create a few charts and graphs out of it.
   1. First use the daily activity data and find the unique id of all the users.
   2. Then find the number of days they use their fitness tracker.
   3. Use this data to group all the users into Active(>20), moderate(>10,<20) and light(<10) users.
      (for example active user can be the one wearing the gear for more than 20 days)
   4. After that find out the mean distance traveled by each user
   5. Use this mean distance to group each user into Pro,Intermediate and beginner.(set criteria by yourself)
   6. Then find out the total steps traveled by each user
   7. Then find out the calories burned by each user
   8. And then find out their fairly active, lightly active and Very active minutes.
   9. Repeat all these tasks (1 to 8) with respect to distinct dates (for example find out unique dates instead of unique id and calculate number of users on that date).
   10. Use this filtered data to create charts and graphs for better visualization.

Evaluation Rubrics:

Q1 - 20 marks
- 10 marks for correct output according to the given criteria
- 5 marks for defining the criteria clearly
- 5 marks for visualization, including creating a chart if applicable

Q2 - 20 marks (same as Q1)
- 10 marks for correct output according to the given criteria
- 5 marks for defining the criteria clearly
- 5 marks for visualization, including creating a chart if applicable

Q3 - 20 marks (same as Q1)
- 10 marks for correct output according to the given criteria
- 5 marks for defining the criteria clearly
- 5 marks for visualization, including creating a chart if applicable

Q4 - 40 marks (4 marks each)
- 4 marks for each correct output
- 0 marks for wrong output

Q9 - marks will be given from 0 to 4 depending on the quality of the dashboard
- 0 marks for poor quality
- 1 to 4 marks for progressively better quality dashboards

Important: Please note that, if the student sets their own criteria, they need to clearly mention and explain it. Marks will be given according to the specified criteria if they are acceptable.