

# PrepInsta Data Analytics Internship

## Capstone project – Fitbit Consumer Behavior Analysis

[Google Colab](#) [Tableau](#)

### Objective:

Imagine you are a data analyst at “HealthTrackers Inc.,” a fictional company operating in the Fitbit industry. Your company is dedicated to understanding consumer behavior to enhance product offerings and optimize marketing strategies. You have been tasked with analyzing a comprehensive dataset obtained from Fitbit users to uncover trends and insights. The business objective is to identify key trends, understand their implications for customers, and leverage these insights to shape an effective marketing strategy.

### Tasks:

- Exploratory Data Analysis (EDA)
- Consumer Behavior Trends
- Customer Segmentation
- Implications for Customers
- Marketing Strategy Recommendations
- Visualization and Dashboard

### Deliverables:

- Project Proposal
- EDA
- TABLEAU Dashboard
- Customer Segmentation Analysis:
- Implications for Customers Report
- Marketing Strategy Recommendations

### Tools:

- Microsoft excel or spreadsheet
- Google Colab
- Tableau

## Cleaned Data:

	Id	ActivityDay	ActivityHour	TotalIntensity	AverageIntensity	StepTotal	Calories
0	1503960366	12-04-2016	00:00	20	0.333333	373	81
1	1503960366	12-04-2016	01:00	8	0.133333	160	61
2	1503960366	12-04-2016	02:00	7	0.116667	151	59
3	1503960366	12-04-2016	03:00	0	0.000000	0	47
4	1503960366	12-04-2016	04:00	0	0.000000	0	48

	Id	ActivityDay	ActivityMinute	METs	Calories	Intensity	Sleep	Steps
0	1503960366	12-04-2016	00:00:00	10	0.7865	0	3	0
1	1503960366	12-04-2016	00:01:00	10	0.7865	0	2	0
2	1503960366	12-04-2016	00:02:00	10	0.7865	0	1	0
3	1503960366	12-04-2016	00:03:00	10	0.7865	0	1	0
4	1503960366	12-04-2016	00:04:00	10	0.7865	0	1	0

	Id	ActivityDate	TotalSteps	TotalDistance	TrackerDistance	LoggedActivitiesDistance	VeryActiveDistance	ModeratelyActiveDistance
0	1503960366	2016-04-12	13162	8.50	8.50	0.0	1.88	0.55
1	1503960366	2016-04-13	10735	6.97	6.97	0.0	1.57	0.69
2	1503960366	2016-04-14	10460	6.74	6.74	0.0	2.44	0.40
3	1503960366	2016-04-15	9762	6.28	6.28	0.0	2.14	1.26
4	1503960366	2016-04-16	12669	8.16	8.16	0.0	2.71	0.41

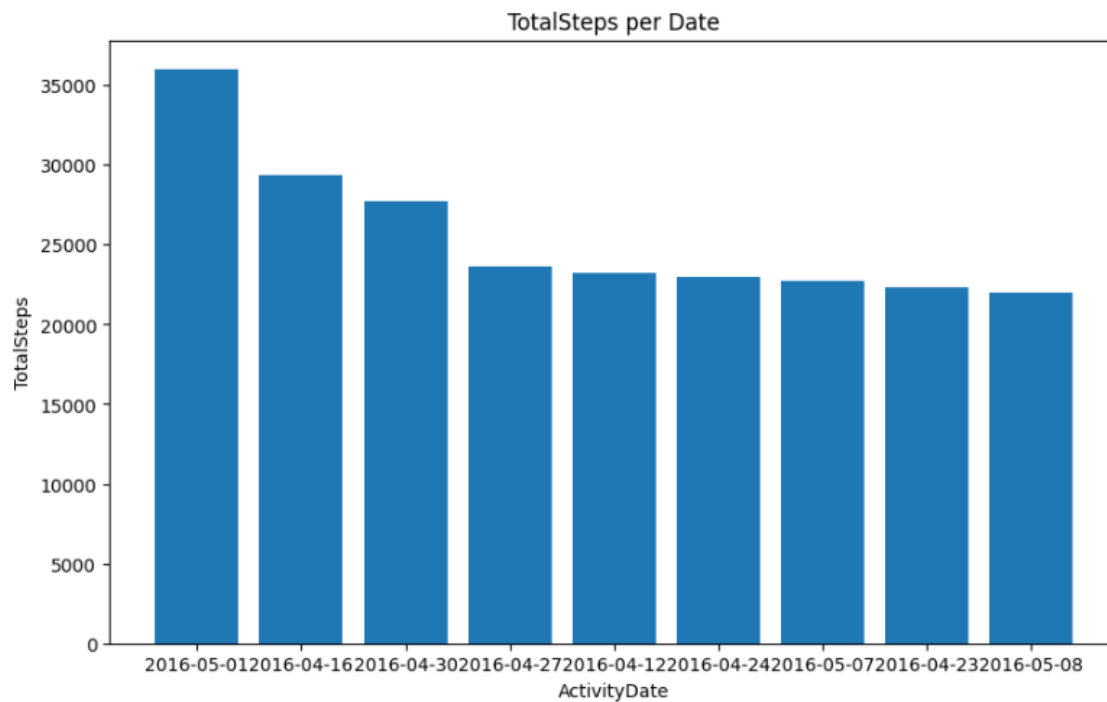
	Id	Day	Time	Heartrate	DailyMeanHeartrate
0	2022484408	2016-04-12	07:21	102	74.051532
1	2022484408	2016-04-12	07:22	92	74.051532
2	2022484408	2016-04-12	07:23	58	74.051532
3	2022484408	2016-04-12	07:24	58	74.051532
4	2022484408	2016-04-12	07:25	57	74.051532

	Id	SleepDay	TotalMinutesAsleep	TotalSleepRecords	TotalTimeInBed
0	1503960366	2016-04-12	327	1	346
1	1503960366	2016-04-13	384	2	407
2	1503960366	2016-04-15	412	1	442
3	1503960366	2016-04-16	340	2	367
4	1503960366	2016-04-17	700	1	712

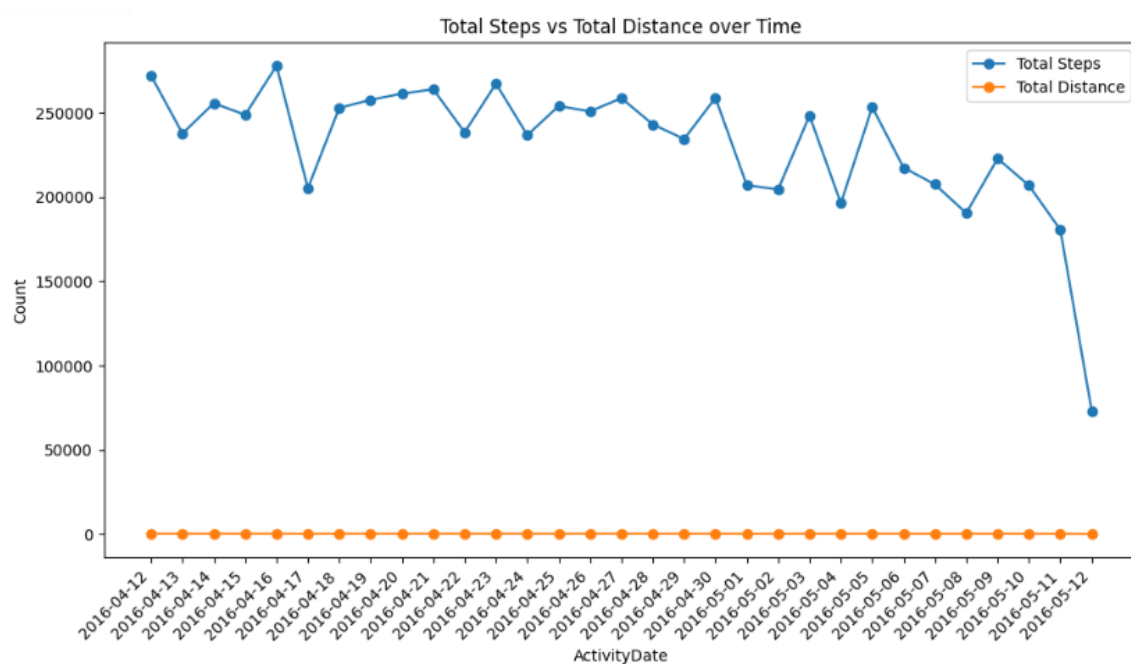
	Id	Date	Weight	BMI	WeightKg	WeightPounds
0	1503960366	2016-05-02	22.650000	52.599998	115.963147	
1	1503960366	2016-05-03	22.650000	52.599998	115.963147	
2	1927972279	2016-04-13	47.540001	133.500000	294.317120	
3	2873212765	2016-04-21	21.450001	56.700001	125.002104	
4	2873212765	2016-05-12	21.690001	57.299999	126.324875	

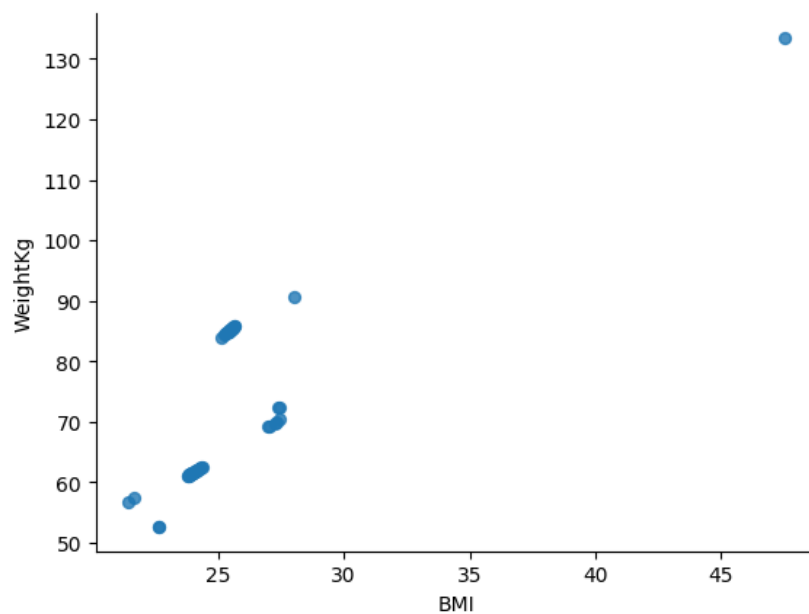
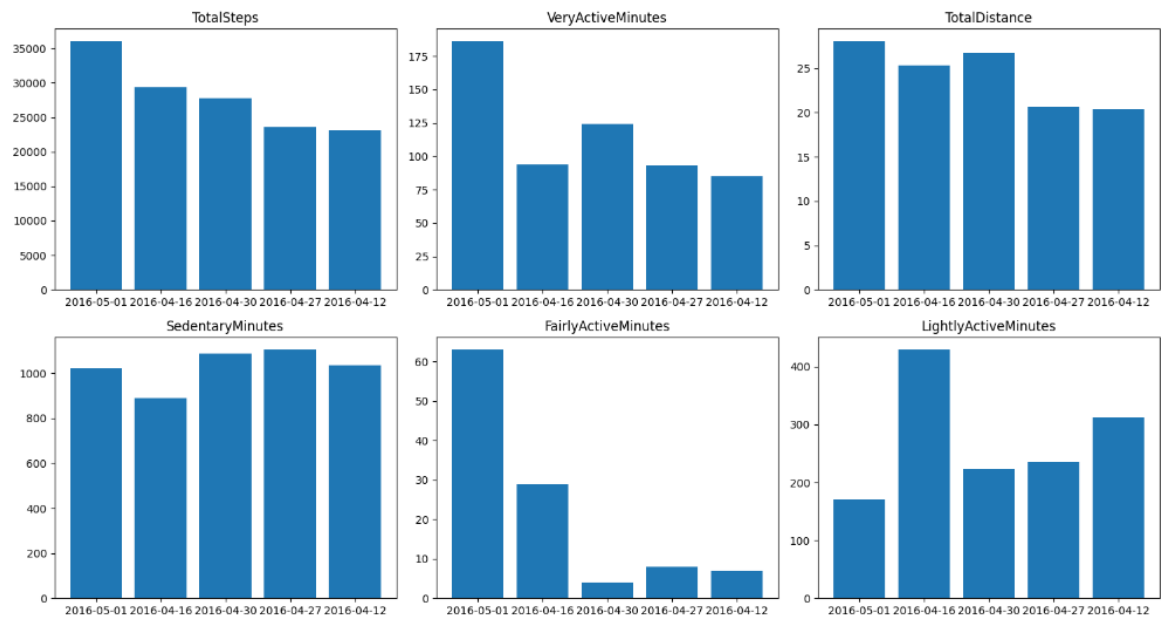
## Exploratory Data Analysis:

Bar chart for Total Steps:

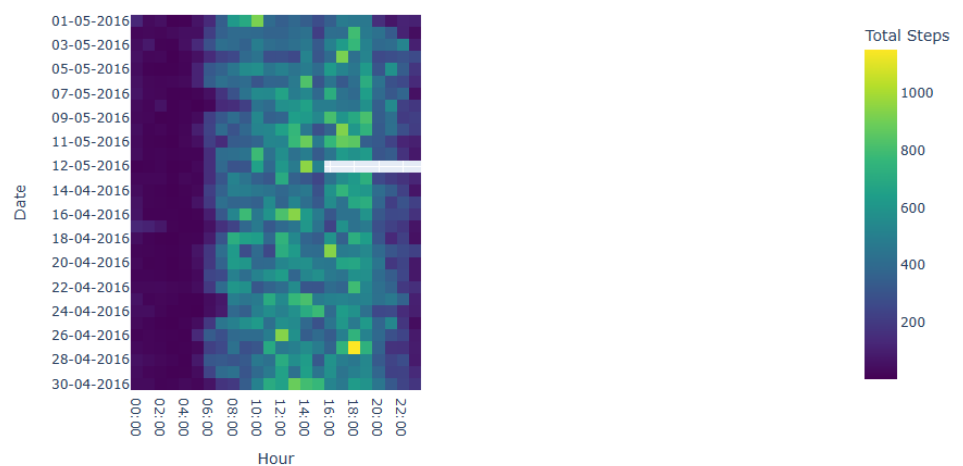


Line Chart for Total steps Vs Total distance:



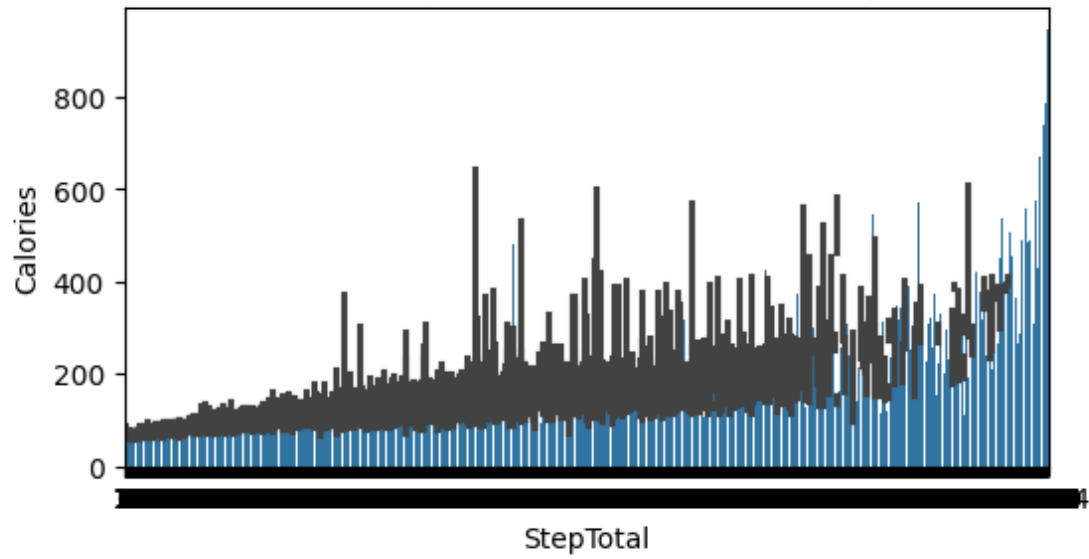


Heatmap of Total Steps per Day and Hour

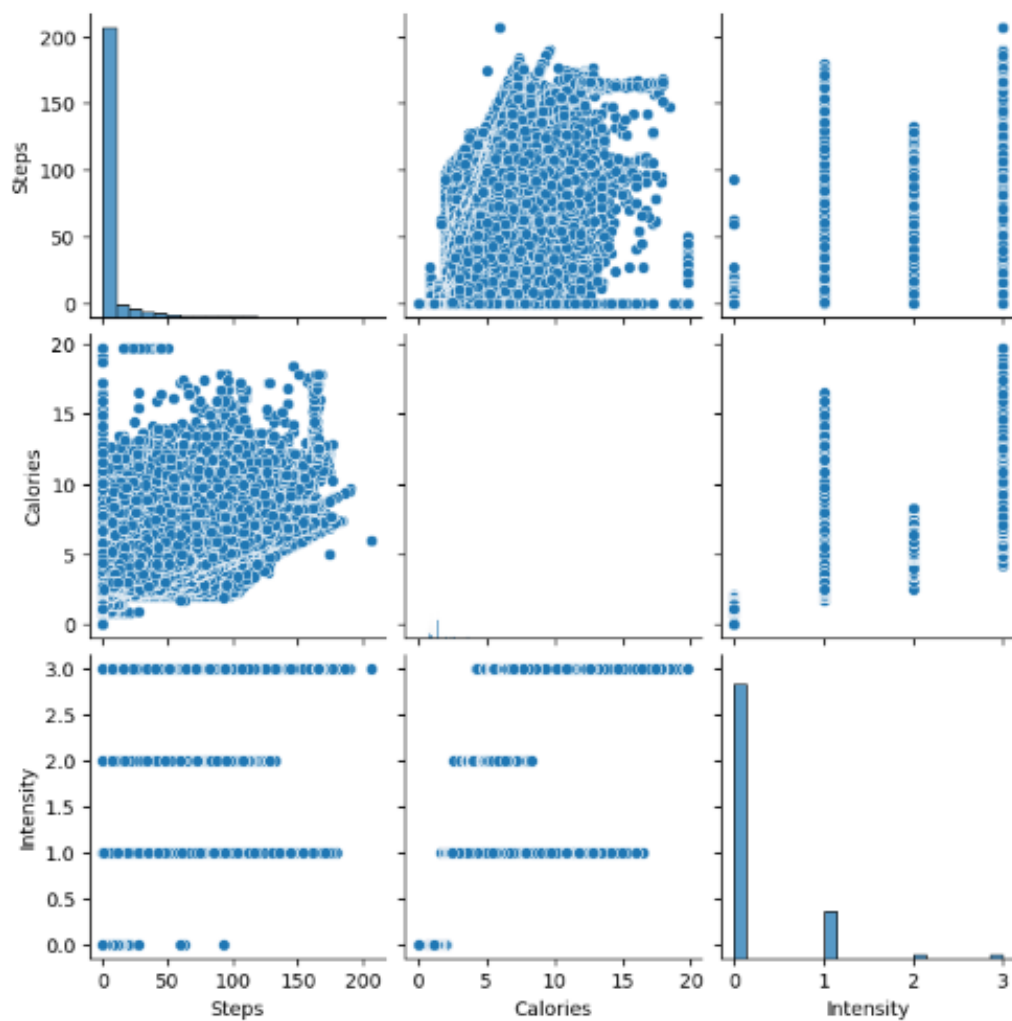


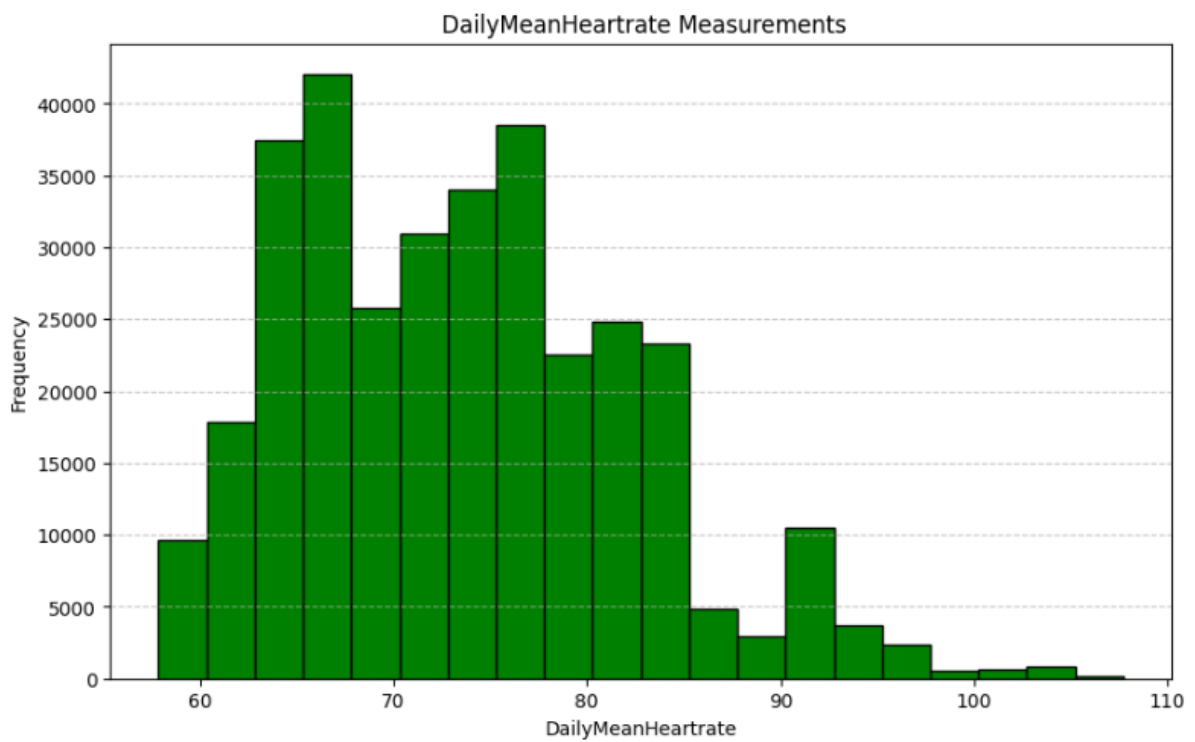
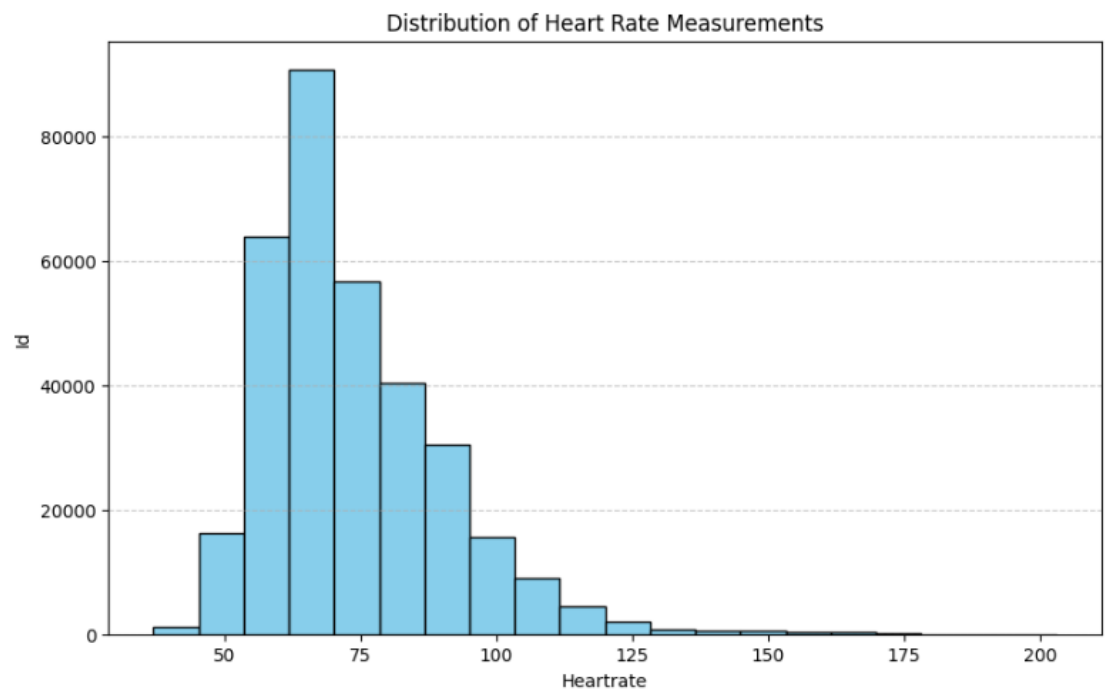
[4]

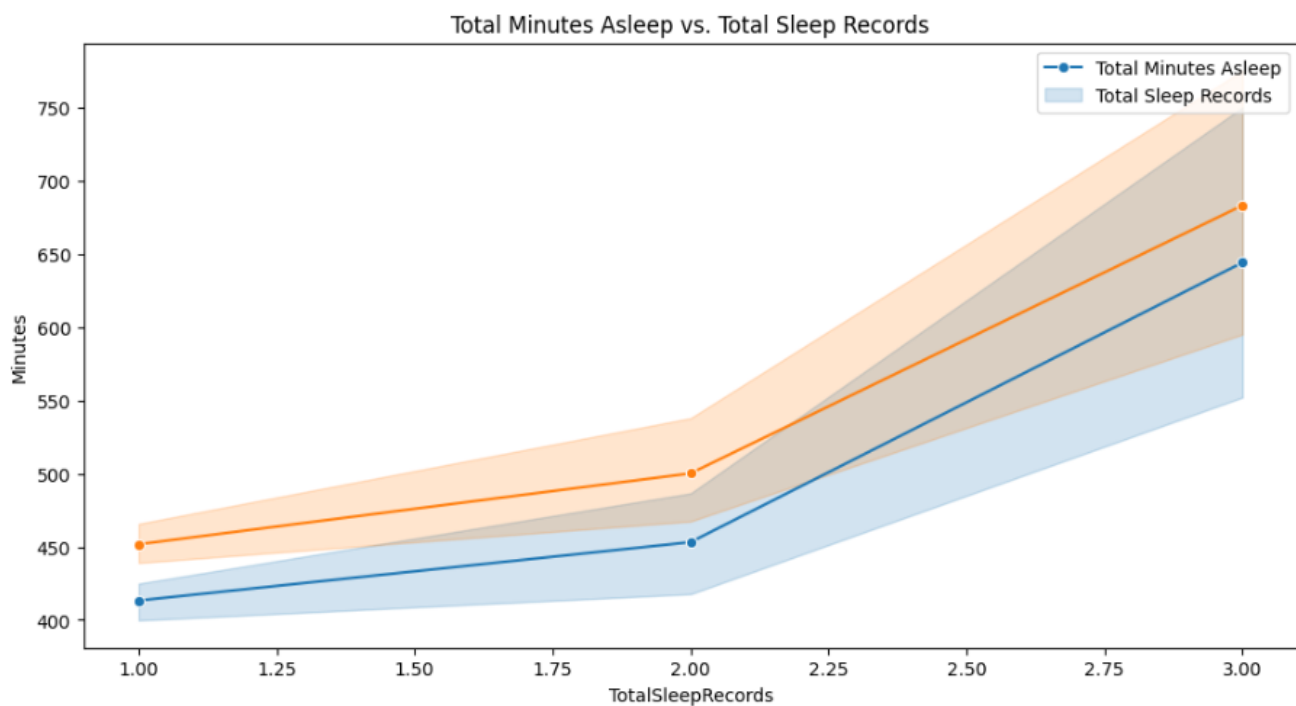
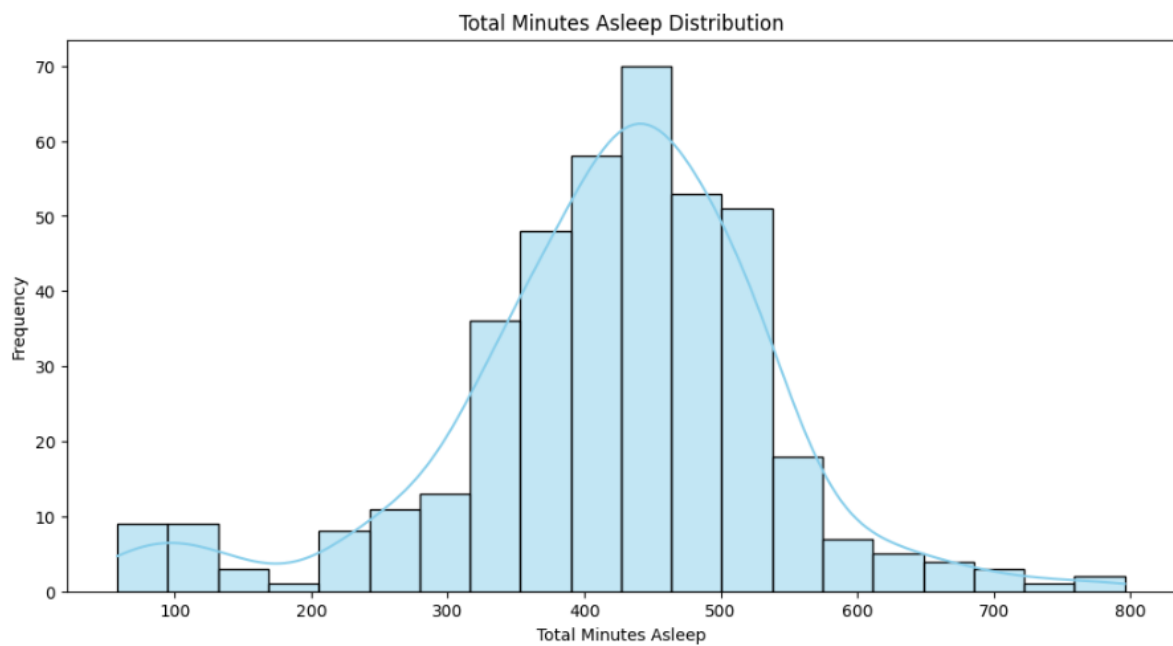
Total Steps for Each Hour of the Day



Pair Plot: Steps, Calories, and Intensity





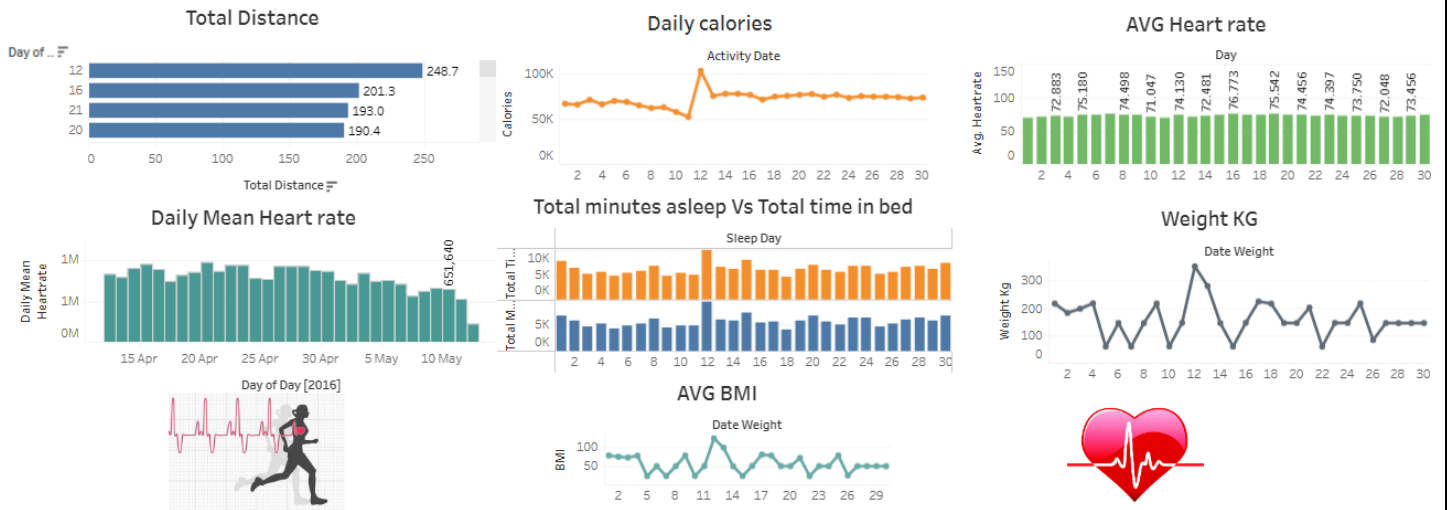




# Tableau Dashboard



## Fitbit Dashboard



Thankyou

Pranay Mungre