PREPINSTA

SUMMER INTERNHSIP

CAPSTONE PROJECT

FITNESS Dataset EDA & Dashboard

Using Google Colab & Tableau

Report & Analysis by

TUSHAR GUPTA

Acknowledgement

DATASETS

1. ## Uncleaned Data: -

   ➢ Daily Activity, Daily Calories, Daily Steps, Daily Intensities, Heart Rate, Hourly Calories, Hourly Steps, Hourly Intensities, Minute MET, Minute Sleep, Minute Steps, Sleep Day, Weight Log

2. ## Cleaned & Merged Data: -

   ➢ latest_merged_DailyStats

➢ merged_hourlyStats

	A	B	C	D	E	F	G
1	Id	ActivityHour	Calories	ActivityDay	TotalIntensity	AverageIntensity	StepTotal
2	1503960366	00:00	81	12-04-2016	20	0.333333	373
3	1503960366	01:00	61	12-04-2016	8	0.133333	160
4	1503960366	02:00	59	12-04-2016	7	0.116667	151
5	1503960366	03:00	47	12-04-2016	0	0	0
6	1503960366	04:00	48	12-04-2016	0	0	0
7	1503960366	05:00	48	12-04-2016	0	0	0
8	1503960366	06:00	48	12-04-2016	0	0	0
9	1503960366	07:00	47	12-04-2016	0	0	0
10	1503960366	08:00	68	12-04-2016	13	0.216667	250
11	1503960366	09:00	141	12-04-2016	30	0.5	1864
12	1503960366	10:00	99	12-04-2016	29	0.483333	676
13	1503960366	11:00	76	12-04-2016	12	0.2	360
14	1503960366	12:00	73	12-04-2016	11	0.183333	253
15	1503960366	13:00	66	12-04-2016	6	0.1	221
16	1503960366	14:00	110	12-04-2016	36	0.6	1166
17	1503960366	15:00	151	12-04-2016	58	0.966667	2063
18	1503960366	16:00	76	12-04-2016	13	0.216667	344

➢ merged_minutes_latest

	A	B	C	D	E	F	G	H
1	Id	ActivityMinute	METs	ActivityDay	Calories	Intensity	Sleep	Steps
2	1503960366	00:00:00	10	12-04-2016	0.7865	0	0	0
3	1503960366	00:01:00	10	12-04-2016	0.7865	0	0	0
4	1503960366	00:02:00	10	12-04-2016	0.7865	0	0	0
5	1503960366	00:03:00	10	12-04-2016	0.7865	0	0	0
6	1503960366	00:04:00	10	12-04-2016	0.7865	0	0	0
7	1503960366	00:05:00	12	12-04-2016	0.9438	0	0	0
8	1503960366	00:06:00	12	12-04-2016	0.9438	0	0	0
9	1503960366	00:07:00	12	12-04-2016	0.9438	0	0	0
10	1503960366	00:08:00	12	12-04-2016	0.9438	0	0	0
11	1503960366	00:09:00	12	12-04-2016	0.9438	0	0	0
12	1503960366	00:10:00	12	12-04-2016	0.9438	0	0	0
13	1503960366	00:11:00	12	12-04-2016	0.9438	0	0	0
14	1503960366	00:12:00	10	12-04-2016	0.7865	0	0	0
15	1503960366	00:13:00	10	12-04-2016	0.7865	0	0	0
16	1503960366	00:14:00	12	12-04-2016	0.9438	0	0	0
17	1503960366	00:15:00	10	12-04-2016	0.7865	0	0	0
18	1503960366	00:16:00	12	12-04-2016	0.9438	0	0	0
19	1503960366	00:17:00	10	12-04-2016	0.7865	0	0	0
20	1503960366	00:18:00	10	12-04-2016	0.7865	0	0	0

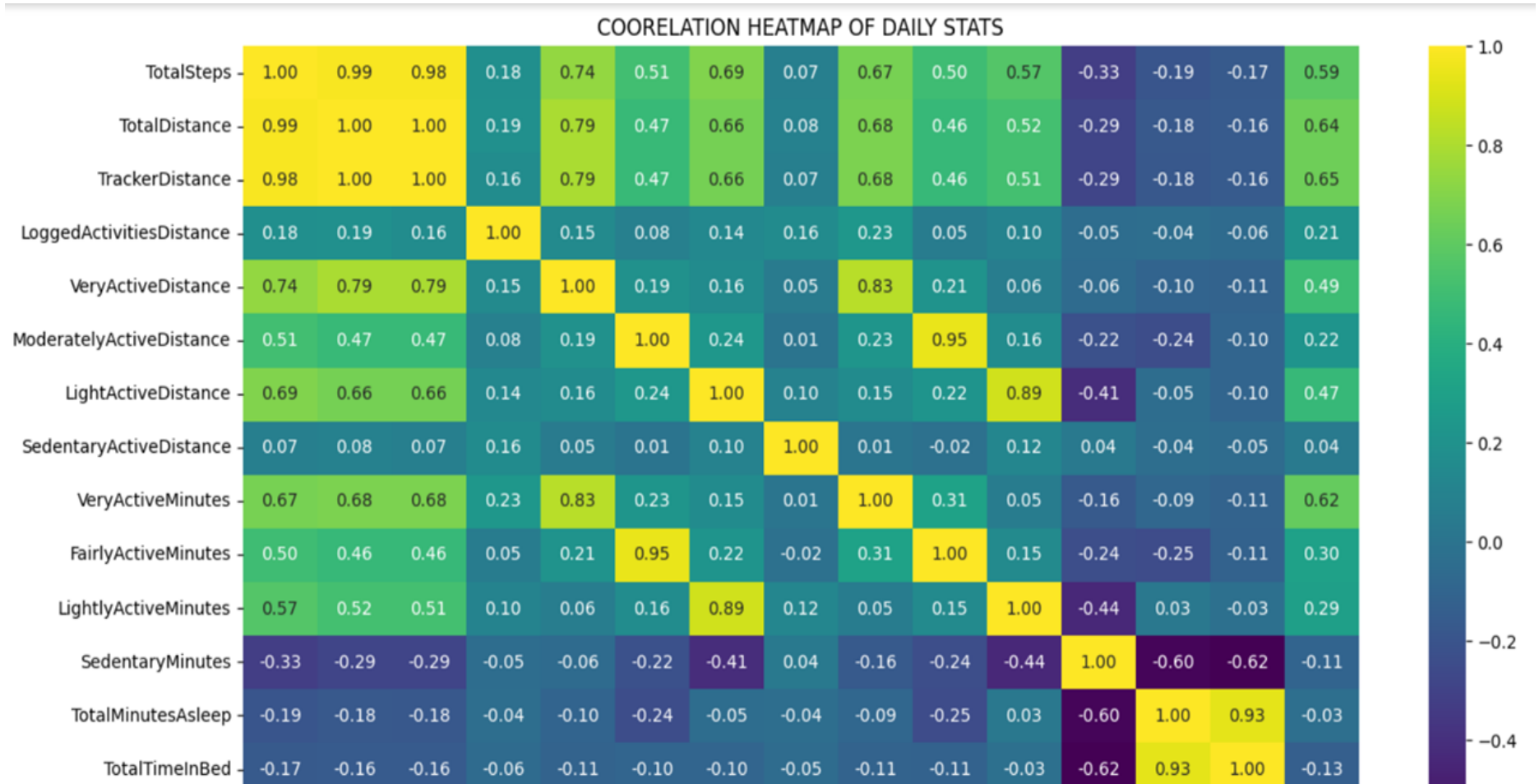# EXPLORATORY DATA ANALYSIS

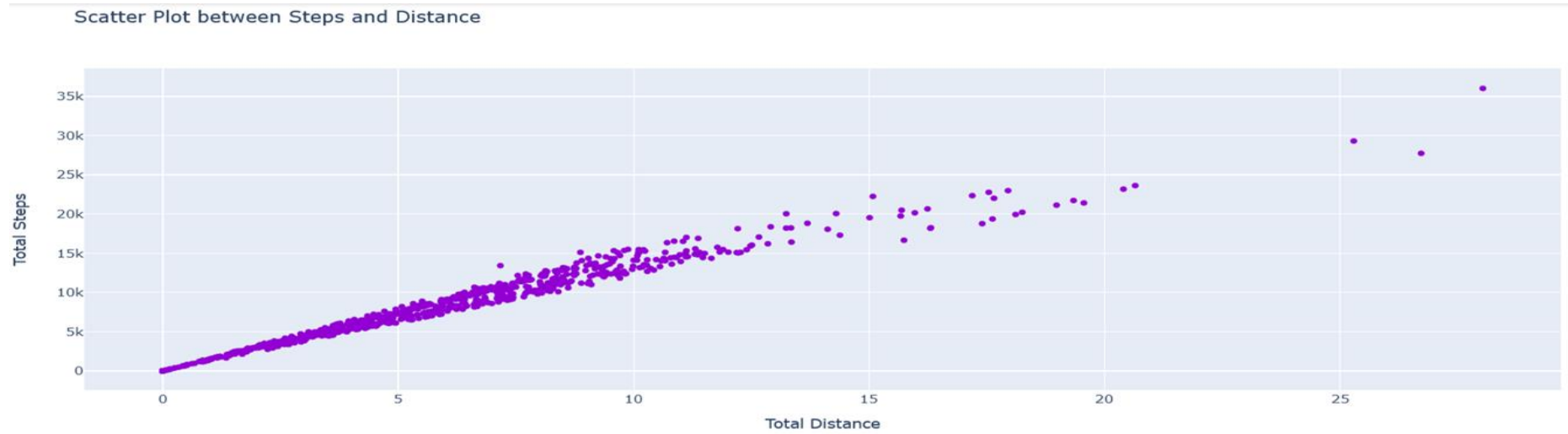## USING GOOGLE COLAB

1. ## DAILY STATS: -

   ➤ Correlation Analysis-

	Id	TotalSteps	TotalDistance	TrackerDistance	LoggedActivitiesDistance	VeryActiveDistance	ModeratelyActiveDistance	LightActiveDistance
Id	1.000000	0.185721	0.241000	0.238816	0.187965	0.308691	0.026665	0.019629
TotalSteps	0.185721	1.000000	0.985369	0.984822	0.181850	0.740115	0.507105	0.692208
TotalDistance	0.241000	0.985369	1.000000	0.999505	0.188323	0.794582	0.470758	0.662002
TrackerDistance	0.238816	0.984822	0.999505	1.000000	0.162572	0.794338	0.470277	0.661365
LoggedActivitiesDistance	0.187965	0.181850	0.188323	0.162572	1.000000	0.150843	0.076539	0.138291
VeryActiveDistance	0.308691	0.740115	0.794582	0.794338	0.150843	1.000000	0.192986	0.157669
ModeratelyActiveDistance	0.026665	0.507105	0.470758	0.470277	0.076539	0.192986	1.000000	0.237847
LightActiveDistance	0.019629	0.692208	0.662002	0.661365	0.138291	0.157669	0.237847	1.000000

➢ HEAT MAP

COORELATION HEATMAP OF DAILY STATS

➢ SCATTER PLOT

Scatter Plot between Steps and Distance

➢ PAIR PLOT

Pair Plot

➢ BAR CHART

Bar Plot: Activity Date vs. Daily Average Heartrate

2. HOURLY STATS: -

➢ SCATTER PLOT

Scatter Plot: Step Total vs Calories

➢

➢ HEAT MAP

Correlation Matrix

	Id	Calories	TotalIntensity	AverageIntensity	StepTotal
Id	1.00	0.20	0.04	0.04	0.05
Calories	0.20	1.00	0.90	0.90	0.81
TotalIntensity	0.04	0.90	1.00	1.00	0.90
AverageIntensity	0.04	0.90	1.00	1.00	0.90
StepTotal	0.05	0.81	0.90	0.90	1.00
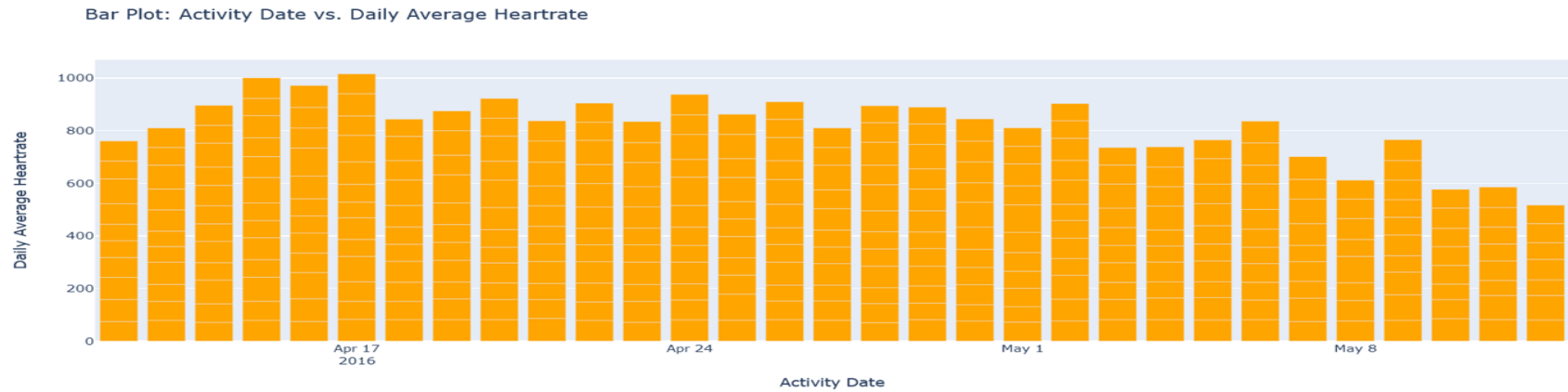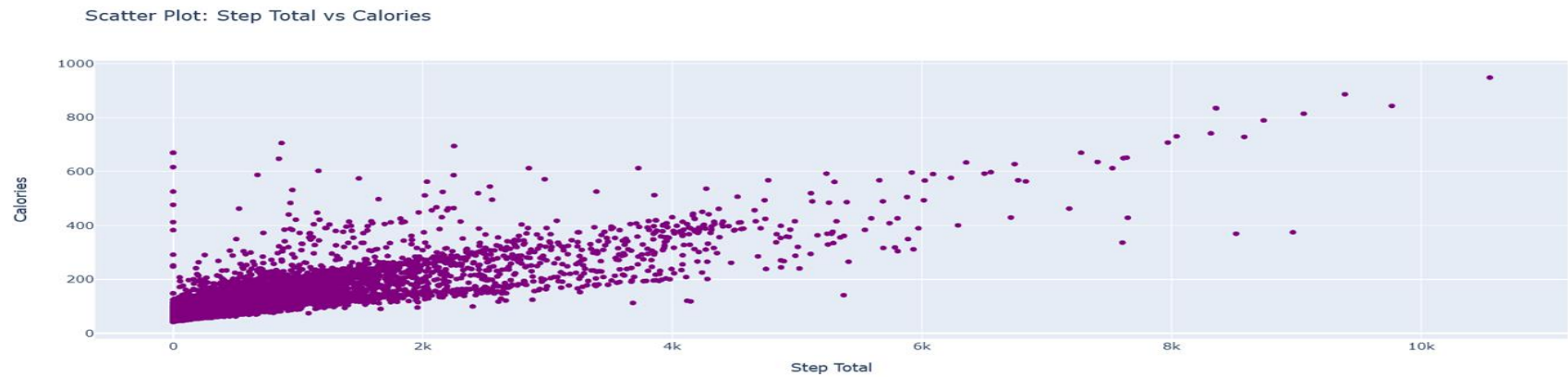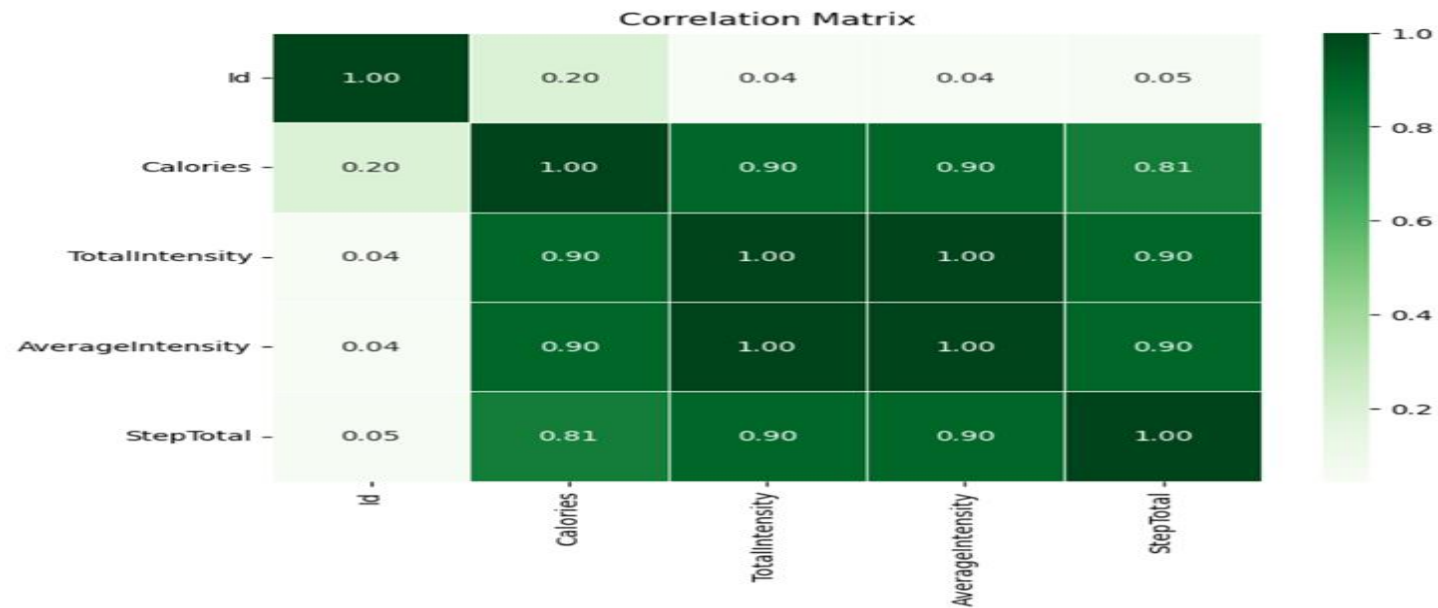
➢ BAR CHART

Calories per Hour
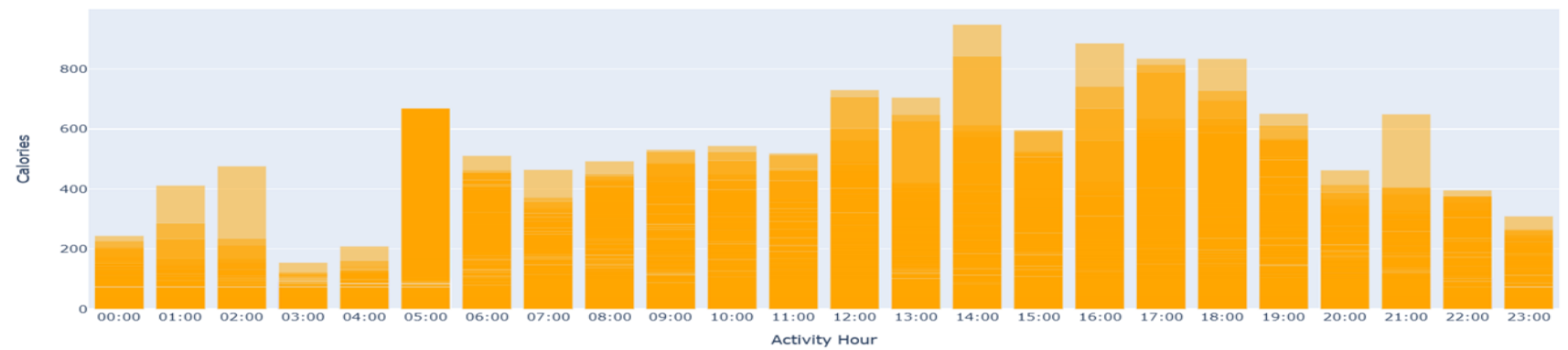
3. MINUTE STATS: -

> HEAT MAP
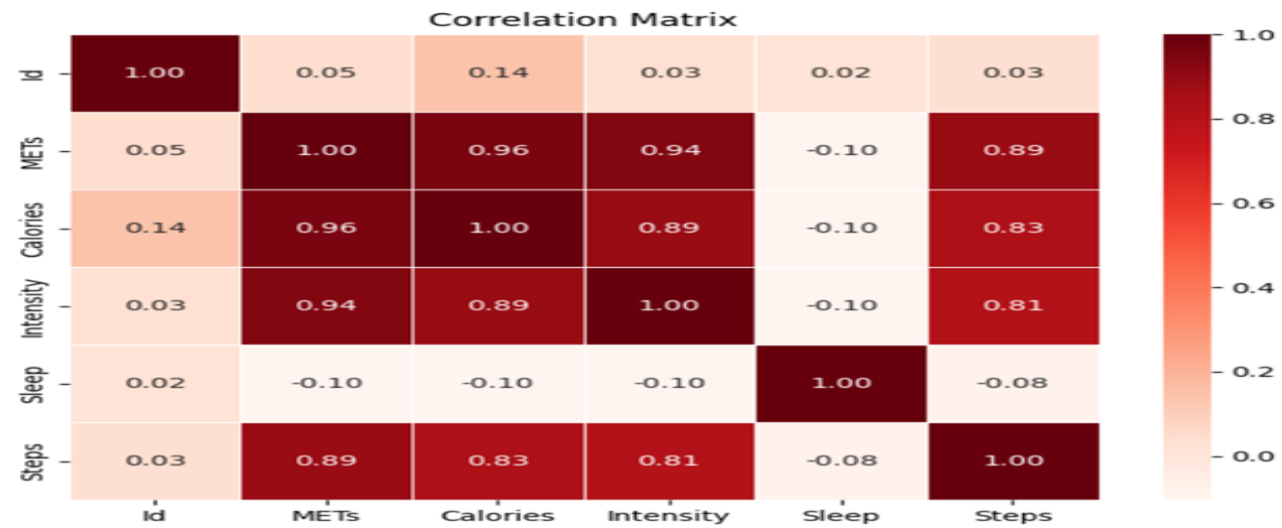
> SCATTER PLOT
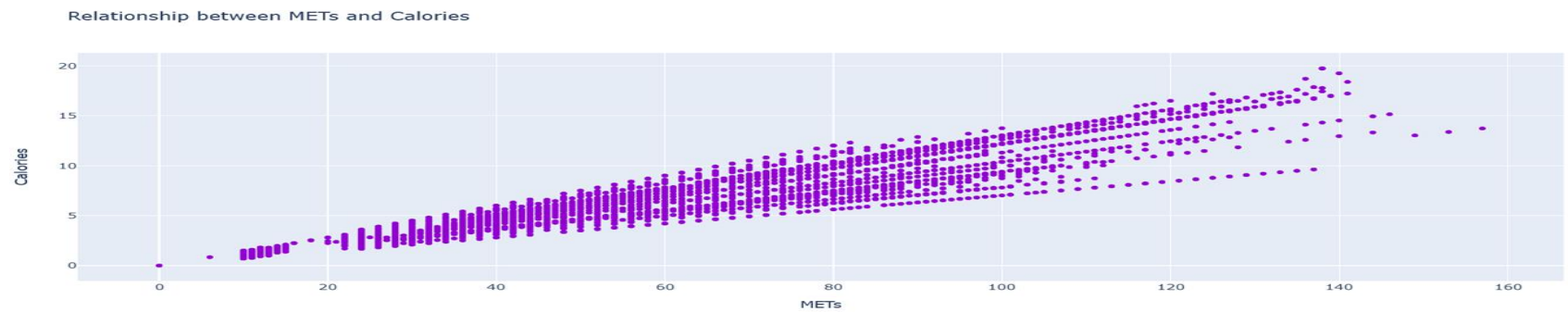
➤ PAIR PLOT

PAIR PLOT BETWEEN CALORIES, INTENSITY & SLEEP
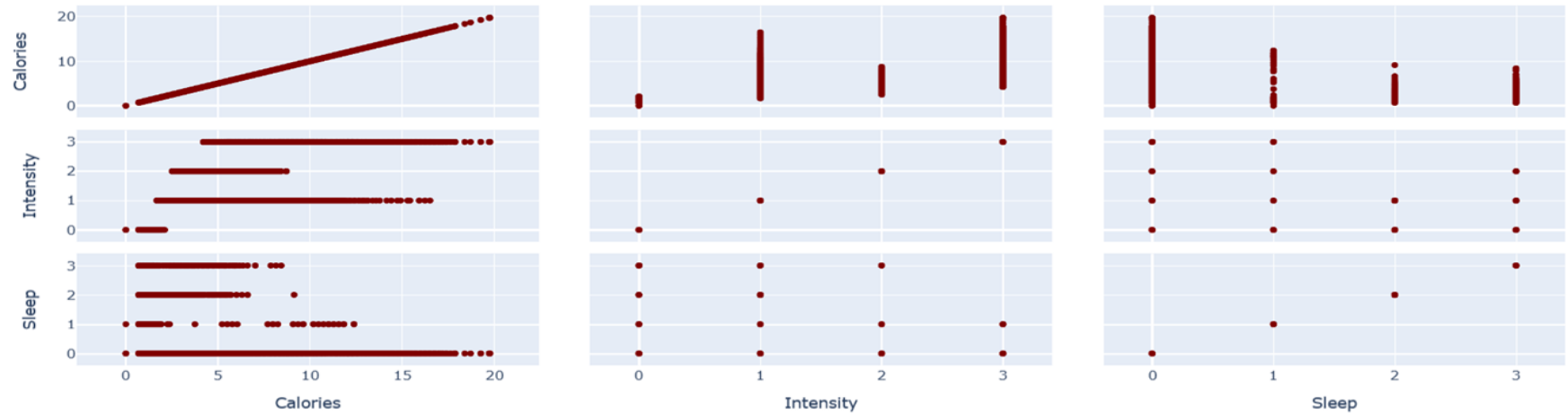
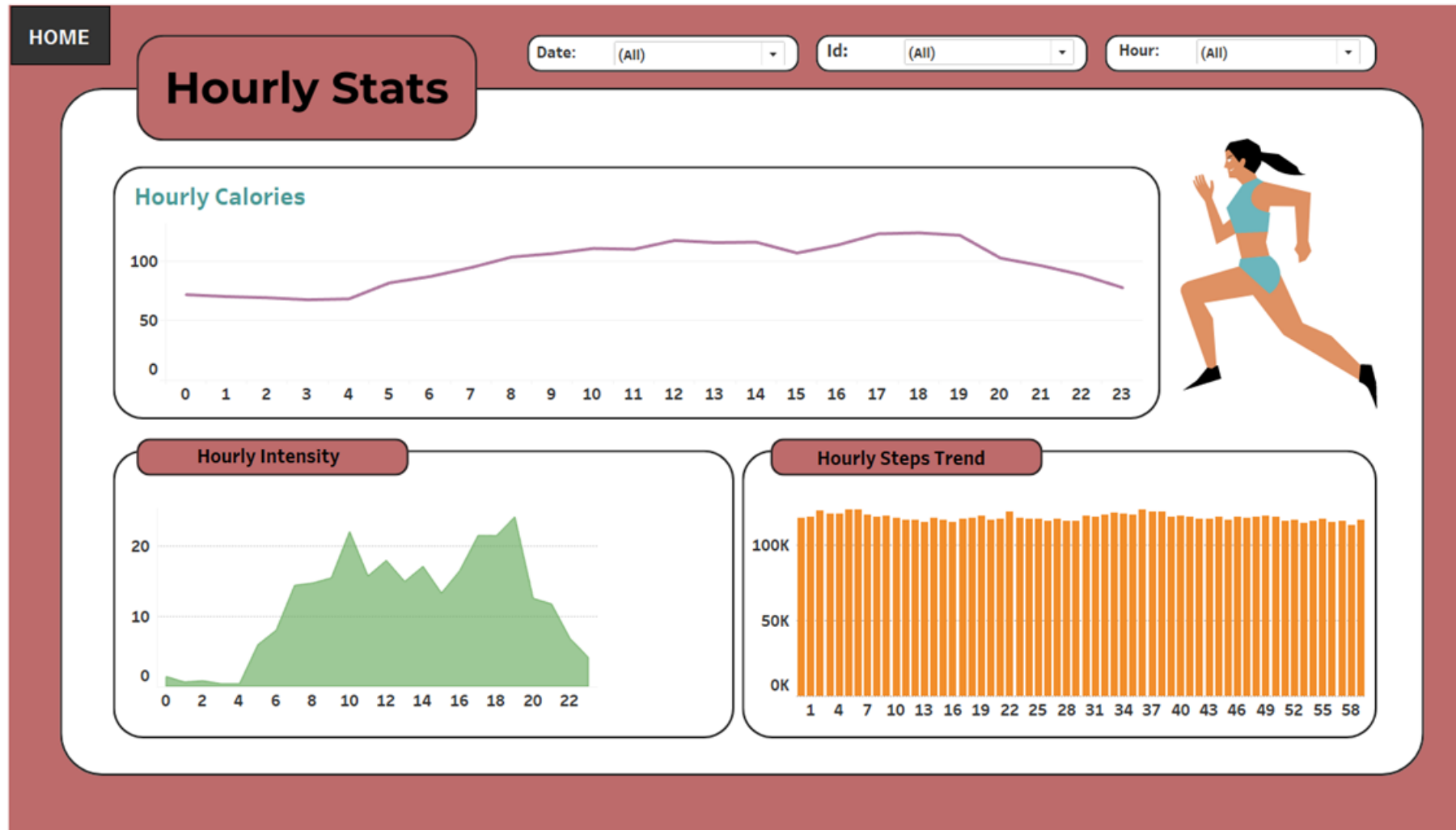# FITBIT FITNESS DASHBOARD

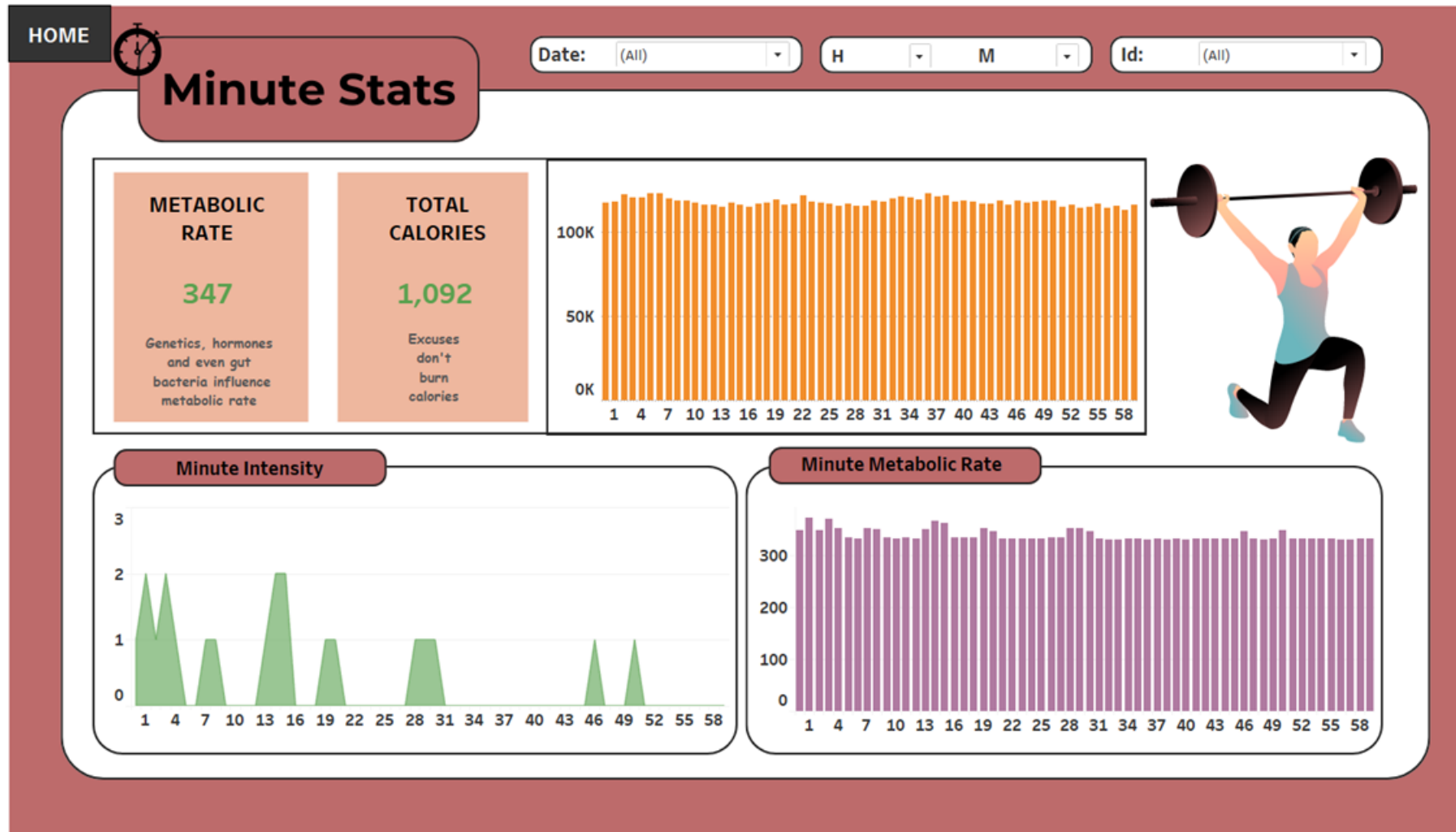➢IMPORTING DATASETS IN TABLEAU-
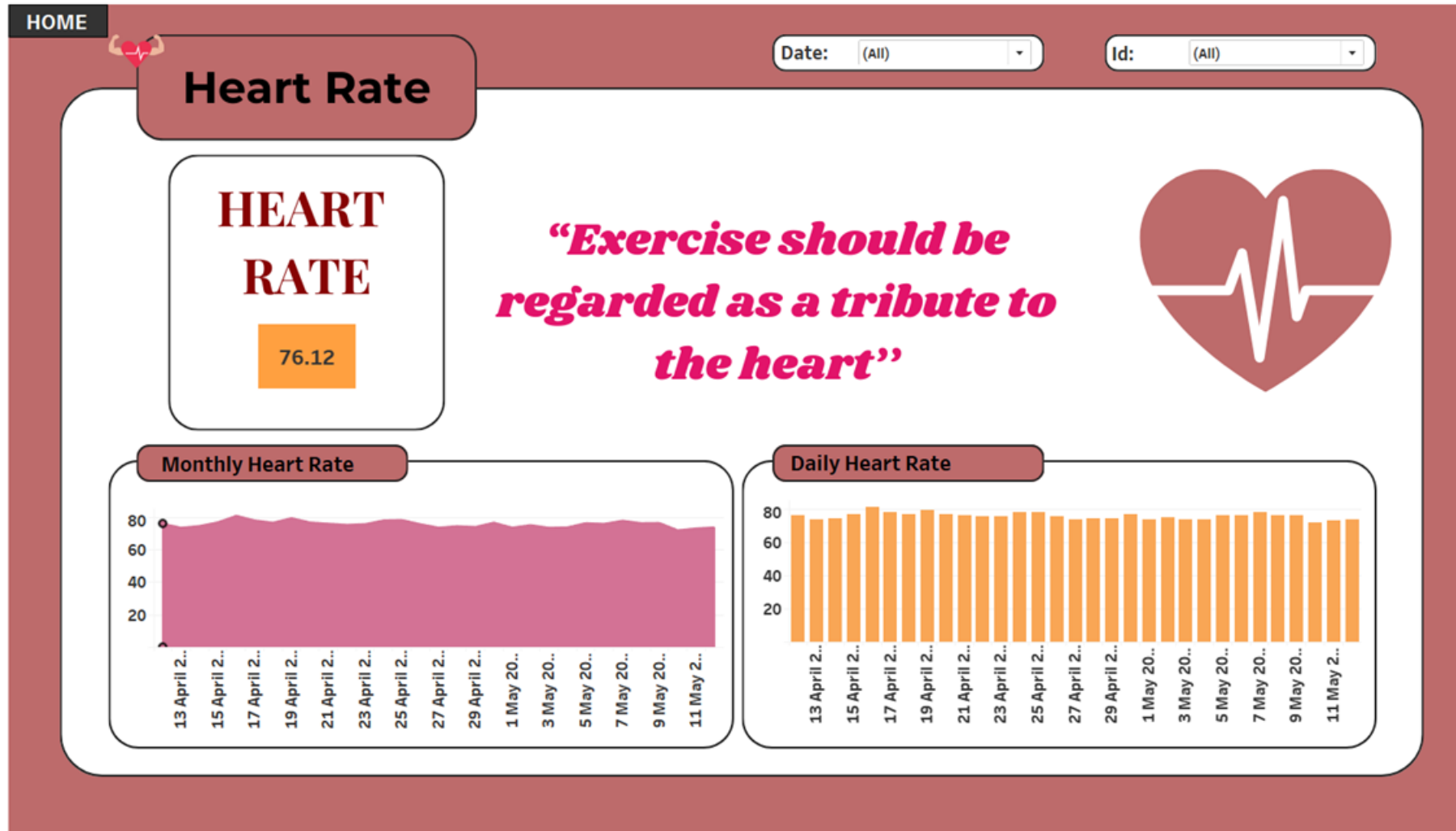
➢ HOME PAGE –
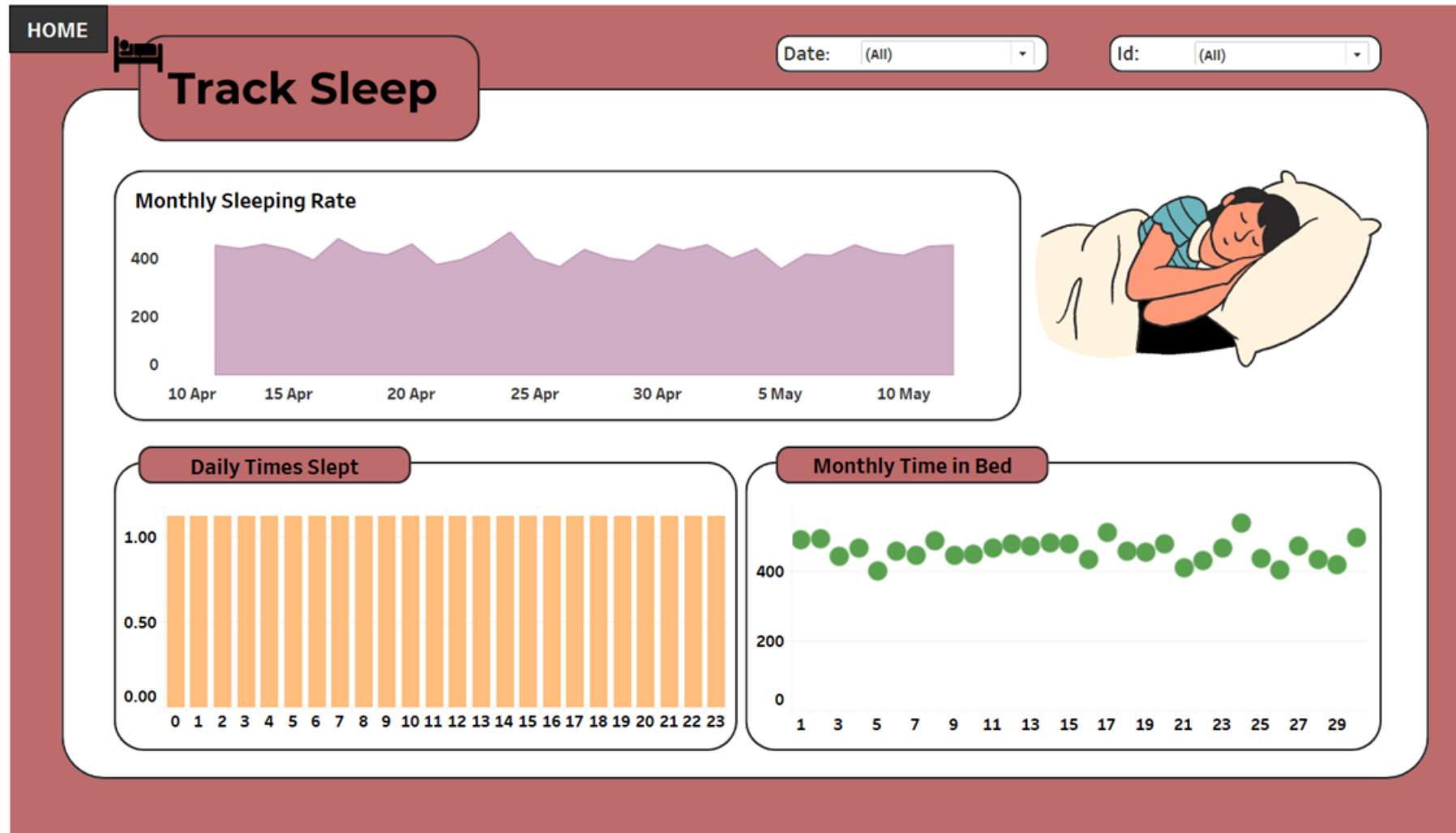
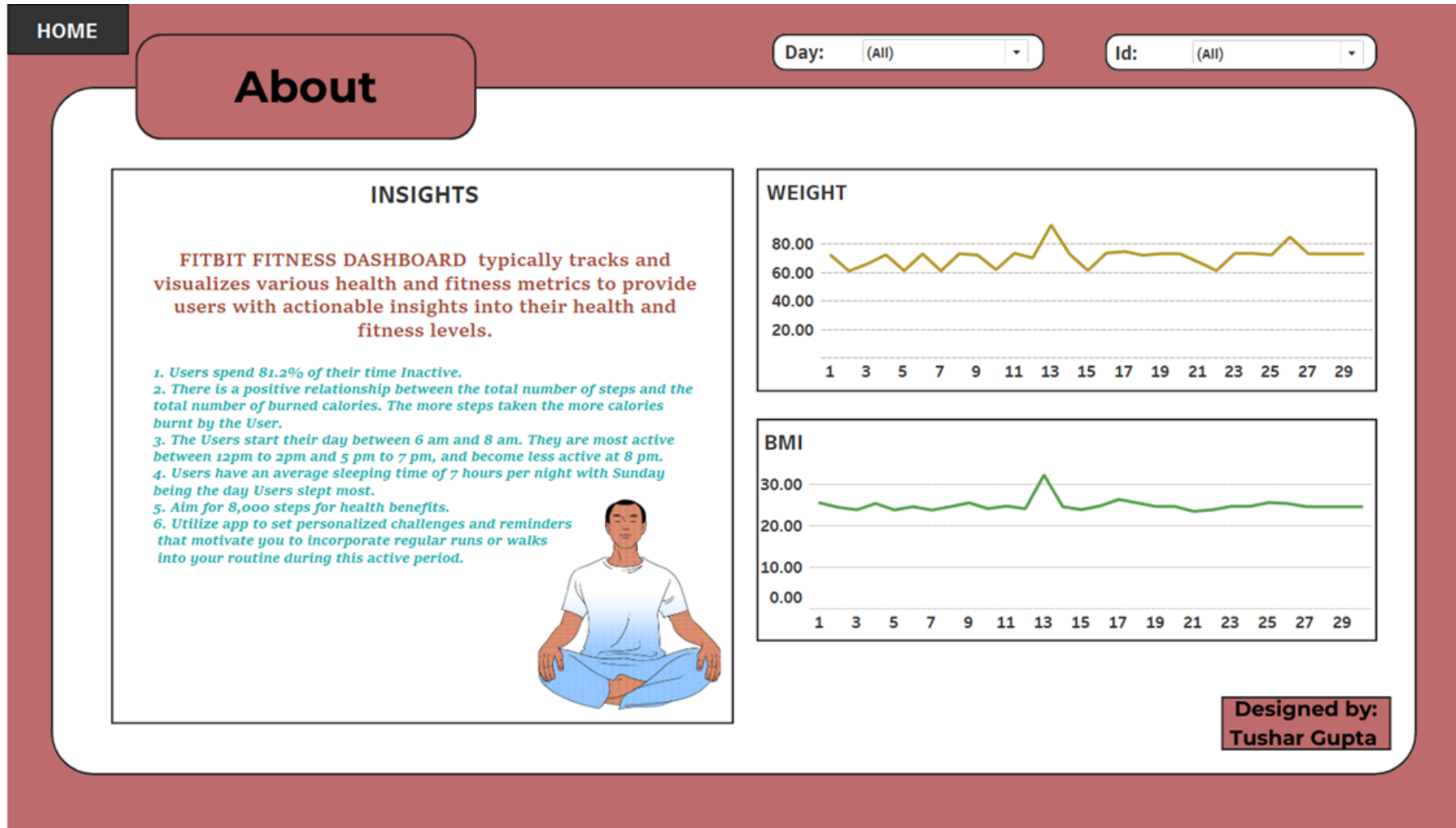➤ DAILY STATS –

➢   HOURLY STATS -

➢ MINUTE STATS –

➢ HEART RATE –

TRACK SLEEP –

➤ ABOUT –

CONCLUSION

The dashboard's intuitive design ensures that complex data is presented in an accessible manner, empowering user to make informed decisions about their fitness routines. Additionally, the ability to drill down into specific metrics helps users set realistic goals, monitor progress, and adjust their activities accordingly. Overall, this Fitness Dashboard serves as a powerful tool for both fitness enthusiasts and professionals, providing actionable insights that drive healthier lifestyles.