LifeStyle-Dataset Analysis

-part I-

Overview

From **October 9** to **October 13.**

The purpose of this study is to examine how exercise and lifestyle habits affect the quality and specific aspects of people's health.

This project was carried out **individually.**

Summary

Date	Oct 9, 2025
Key Information	**Title: LifeStyle Dataset Analysis** Include relevant highlights --- **Data Source** The project was conducted individually using a dataset from Kaggle, containing 2,000 participants with no missing or incomplete data. This makes the dataset sufficiently large and relevant for calculating and demonstrating specific health indicators and results.
Steps	1. **Data Analysis:** Examine the dataset to understand its structure, variables, and completeness. 2. **Requirement Mapping:** Identify the relevant research questions that the dataset can address. 3. **Requirement Resolution:** Solve each research question individually using the dataset. 4. **Results Interpretation:** Analyze and interpret the results obtained to draw meaningful insights. 5. **Conclusion Formulation:** Draw relevant conclusions based on the results and the chosen dataset.
Support Needed	**Technology / Tools Used:** **Data Source:** Kaggle dataset (2,000 participants, no missing data) **Software / Programming Languages:** Python, Jupyter Notebook, Pandas, Matplotlib/Seaborn, Rattle, R for data analysis and visualization **Other Tools:** Excel (optional, for initial exploration)
Problems Studied	**The project focuses on performing a descriptive analysis of the dataset to better understand patterns in health and exercise habits. Specifically, the study aims to:** 1. **Calculate the mean, minimum, and maximum values for age, weight, height, body fat percentage, and BMI to summarize the general characteristics of the participants.** 2. **Examine the duration of workouts and the calories burned to evaluate participants' physical activity levels.** 3. **Assess the distribution of participants by gender and experience level to identify demographic trends.** 4. **Determine the average calories burned for different types of workouts, such as HIIT, Cardio, and Strength training, to compare their effectiveness.** 5. **Investigate the correlation between workout duration and calories burned to identify potential relationships between exercise intensity and energy expenditure.**

Resources

Title of Resource Here

Pivot Table - pentru repartitia pe sexe, tipul de antenament si experienta dobandita

Corelatia Pearson- formula si aplicabilitate

Rezults

	*The analysis revealed a moderate to strong positive correlation (R > 0.5) between workout duration and calories burned, indicating that longer workouts generally lead to higher energy expenditure.*
	*Female participation was slightly higher (10,028 women vs. 9,972 men).*
	*On average, women burned slightly more calories across all workout types.*
	*HIIT proved to be the most efficient workout type (≈1,652 kcal/session), followed by Strength (≈1,361 kcal), Cardio (≈1,212 kcal), and Yoga (≈897 kcal).*
	• *Overall, high-intensity workouts lead to higher calorie expenditure, while participation levels indicate balanced engagement across genders.*