Project 1: Cardio Good Fitness Project

**Submission type**: File Upload **Due Date**: Mar 05, 12:30 PM **Total Score**: 60

**Description**

**Objective** - Preliminary Data Analysis. Explore the dataset and practice extracting basic observations about the data. The idea is for you to get comfortable working in Python.

You are expected to do the following :

1. Come up with a customer profile (characteristics of a customer) of the different products
2. Perform uni-variate and multi-variate analyses
3. Generate a set of insights and recommendations that will help the company in targeting new customers

**Context** - The data is for customers of the treadmill product(s) of a retail store called Cardio Good Fitness. It contains the following variables

1. Product - the model no. of the treadmill
2. Age - in no of years, of the customer
3. Gender - of the customer
4. Education - in no. of years, of the customer
5. Marital Status - of the customer
6. Usage - Avg. # times the customer wants to use the treadmill every week
7. Fitness - Self rated fitness score of the customer (5 - very fit, 1 - very unfit)
8. Income - of the customer
9. Miles- expected to run

Explore the dataset to identify differences between customers of each product. You can also explore relationships between the different attributes of customers. You can approach it from any other line of questioning that you feel could be relevant for the business.

**Minimum Steps for exploration:**

1. Importing the dataset into Python & understanding the structure of the dataset
2. Basic summary of data and graphical exploration
3. Observations from the dataset

**Submission Guidelines :**

Please note the following:

1. There are two parts to the submission:
   1. A well commented Jupyter notebook [format - .ipynb]
   2. A presentation as you would present to the top management [format - .ppt /.pptx]
2. Any assignment found copied/ plagiarized with other groups will not be graded and awarded zero marks
3. Please ensure timely submission as post-deadline assignment will not be accepted
4. Your submission will not be evaluated if it contains more than 2 files.

Happy Learning!!

**Scoring guide (Rubric) - Axis Insurance Project**

| **Criteria** | **Points** |
| --- | --- |
| **Understanding the structure of the data** | 3 |
| **Univariate Data Analysis**  Analysis of spread and distribution of every feature in the dataset. | 12 |
| **Multivariate Data Analysis**  Analysis of interaction between features, in the dataset | 15 |
| **Quality & Use of visualisations** | 9 |
| **Conclusion and Recommendations** | 15 |
| **Well commented Python Code** | 6 |
| Points | 60 |