

Project Title: The Relationship between Hobbies and Well-Being

Project by:

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Project Description:

The project aims to investigate how students' hobbies and activities impact their overall well-being, social connections, and academic performance. The dataset provides detailed information on individuals' hobbies, academic records, personality traits, and social behaviors, which will be helpful for the project's analysis. Understanding this relationship between hobbies and well-being can help universities and student organizations plan events and resources to help their students lead a more balanced and healthier lifestyle.

Scientific Research Questions and Statistical Models to be used:

1. Do students with active hobbies, such as arts, music, or sports, have better GPAs than students with no hobbies? (**Linear Regression**)
2. Can we predict academic performance (GPA) based on the combination of hobby type, study habits, and personality? (**Multiple Linear Regression**)
3. Are there significant patterns or clusters among students' preferences (e.g., beverage/cuisine, media/hobbies, sleep patterns) related to academic or social outcomes? (**Clustering**)
4. Are students who identify as 'extroverts' more likely to report multiple hobbies compared to 'introverts'? (**Classification**)

Proposed Variables:

Hobbies, GPA, Hours Spent on Social Media per Week, Beverage Preference, Favorite Cuisine, Monthly Stipend, Monthly Expenditure, Night Owl or Early Bird, Average Hours of Sleep per Night, Hours Spent Studying per Week, Introvert or Extrovert, Minutes spent playing sports/working out per week, Preference for eating at home or out, and Party Person.

Note: These are just some of the proposed variables we plan to use in our project. We may make use of more variables later.