

# Data Processing and Analysis in Python

## Team Project Guidelines



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MARYLAND

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# Project

- You are providing business analytics (BA) consulting to the University of Maryland Alumni Association (as client)  
<https://alumni.umd.edu/>
  - Inspire lifelong connections with a global network of alumni.
  - Connect, cultivate and channel the power of alumni to enrich themselves and advance the university through membership, event engagement, and volunteerism.
  - Strive to make data-driven decisions to continuously improve programs and events for students, alumni, faculty, and staff.
  - To evaluate the return on investment for individual events.
  - To analyze the aggregate data to draw conclusions that will inform future strategies.



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# Mission Statements

University of Maryland Alumni Association is looking for Longitudinal Impact Report:

- To Identify variables that are correlated to our desired outcomes of higher event attendance of first time attendees and major gift prospect attendees.
- By understanding these correlations, we hope to optimize both new and existing events in order to improve our strategy to engage alumni in these two groups.
- Ultimately, we need assistance in understanding what types of events attract the largest number of first time attendees and major gift prospects so that we can use this information in planning future events.



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# Mission Objectives

- Based on the variables provided in the dataset, how can we get more first time attendees to attend our events?
- Based on the variables provided in the dataset, how can we get more major gift prospects to attend our events?
- ...



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# Dataset

## UMD Alumni Association Dataset.xlsx

- The dataset provided is from 07/01/2013-11/30/2019 and contains seven subsets of data, arranged by fiscal year (July 1 – June 30).
- The data set outlines each program or event hosted by the Alumni Association and provides general information on the event as well as the event registrants.



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# Data Dictionary

- **Activity code** - 5-digit code used to track alumni event attendance.
- **Location code** - 4-digit code used with the activity code to denote the region and location an event takes place.
- **Group code** - 3-digit code used with the activity code to denote the event's intended purpose and audience.
- **First time attendee** - who has never previously attended an event as an alumnus/a according to our database.
- **Major prospect** - alumnus/a or friend of the university who has the ability to make a financial gift of \$50,000 or more to the university.



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# Project Timeline

## 1. Project slides (due 12/3)

- Title: project name, team information, date
- Introduction: mission statements and objectives
- Methods
- Findings
- Recommendations
- (If any) Future Work

## 2. Team presentation (on 12/7,9)

- All team members present
- Up to 8 minutes
- Q&A up to 2 minutes

## 3. Final deliverable suite in multiple files (due 12/10)



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# Project Timeline

## 3. Final deliverable suite in multiple files (due 12/10)

- (if needed) your updated Excel file to be read by your Python file
- 100pts: Project\_050#\_##\_[\_purpose].py | .ipynb file(s):
  - ◆ with appropriate comments and credits
- 40pts: Project\_050#\_##\_pptx enhanced from your presentation:
  - ◆ team information, mission statements and objectives, etc.
  - ◆ processing, methods, analysis, etc.
  - ◆ results, findings, recommendations, future work, etc.
- 20pts: Project\_050#\_##\_docx to document and explain:
  - ◆ What did you use?
  - ◆ What you have accomplished?
  - ◆ How to test and evaluate your project?
- 20pts: Team work, punctuality, filenames, presentations, etc.
- 20pts: Overall quality exceeds all baseline requirements listed



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