For this assessment, we'd like to see how you approach discovery, problem solving, and communication for a data science project.

Attempt to solve the following problem on the provided dataset using Python (no restrictions on package usage):

- You're given a dataset of Starcraft player performance data in ranked games. We want to develop a model to predict a player's rank using the information provided in the dataset.
- Document your decision making throughout the model building process (EDA, ETL, modeling, evaluation, etc).
  - Try to functionize any repetitive tasks so that the workflow is simplified.
- Once you've settled on your model, communicate your findings to non-technical stakeholders.
- Hypothetical: after seeing your work, your stakeholders come to you and say that they can collect more data, but want your guidance before starting. How would you advise them based on your EDA and model results?

Provided Materials:
- csv file of player game data: *starcraft_player_data.csv*
- Data Dictionary on page 2

Submission Instructions + Materials:
1. Set up a GitHub account if you do not have one: https://github.com/
2. Create a new repository where you will submit your code. You will be sharing this repository with your interviewer(s).
3. Make sure all code is pushed prior to the deadline (anything pushed after will not be reviewed)
4. Please provide the following in your repo:
   a. Python scripts
   b. PDF of outputs and interpretation
      i. If you choose to do this project in a notebook environment, you may do your documentation using Markdown cells instead.
5. Submit the link of this repository to the submission form: https://forms.gle/xVJLf9vKsPghZWvL6

Additional Information:
- Please don't spend too much time on this assessment - it should take approximately 5 hours to complete.

Data Dictionary:

Feature	Description	Datatype
GameID	Unique ID number for each game	integer
LeagueIndex	Bronze, Silver, Gold, Platinum, Diamond, Master, GrandMaster, and Professional leagues coded 1-8	ordinal
Age	Age of each player	integer
HoursPerWeek	Reported hours spent playing per week	integer
TotalHours	Reported total hours spent playing	integer
APM	Action per minute	continuous
SelectByHotkeys	Number of unit or building selections made using hotkeys per timestamp	continuous
AssignToHotkeys	Number of units or buildings assigned to hotkeys per timestamp	continuous
UniqueHotkeys	Number of unique hotkeys used per timestamp	continuous
MinimapAttacks	Number of attack actions on minimap per timestamp	continuous
MinimapRightClicks	number of right-clicks on minimap per timestamp	continuous
NumberOfPACs	Number of PACs per timestamp	continuous
GapBetweenPACs	Mean duration in milliseconds between PACs	continuous
ActionLatency	Mean latency from the onset of a PACs to their first action in milliseconds	continuous
ActionsInPAC	Mean number of actions within each PAC	continuous
TotalMapExplored	The number of 24x24 game coordinate grids viewed by the player per timestamp	continuous
WorkersMade	Number of SCVs, drones, and probes trained per timestamp	continuous
UniqueUnitsMade	Unique unites made per timestamp	continuous
ComplexUnitsMade	Number of ghosts, infestors, and high templars trained per timestamp	continuous
ComplexAbilitiesUsed	Abilities requiring specific targeting instructions used per timestamp	continuous

object