Project Plan

Timeline:

1. Title: FairKalah: Fair Mancala Competition
2. Key Idea: In this assignment, I will be provided with an implementation of a limited minimax Mancala player. Both players are trying to maximize their score against their opponent. The goal is to implement the strongest Mancala AI through Heuristic Evaluation, Alpha-Beta Pruning and managing the AI to work within fixed real-time limits
3. Data Need: No extraneous data is needed, as all initial Mancala board states are provided
4. Methods: The methods used to complete the project are:
   1. Heuristic Evaluation
   2. Alpha-Beta Pruning
   3. Running within real time and space limits
5. Evaluation: The project can be evaluated by having the AI built working with a computation limit of 2.5 minutes. Work correctly implementing alpha-beta pruning and outperforming the provided simple player would most likely receive a high score
6. Milestones
   1. Project Start - September 8
   2. Research/Background Knowledge Complete - September 10
   3. Load csv files into PythonPandas dataframe - September 11
   4. Add new columns with engineered features - September 15
   5. Build simple model looking to predict game values - September 22
   6. Use the learned model parameters to compute a better utility (heuristic) function for your FairKalah player - September 27
   7. Compare the performance of your player versus the given score difference player to see if you have gained a competitive advantage with all other factors being equal. - October 1
   8. Project End - October 3