**Which features will help to predict the gold spent for the players in a match of DOTA 2?**

**Executive Summary**

The objective of the project is to predict the gold a player is going to spend in a match of the DOTA 2 players based on different qualities of the DOTA 2. The project consists of creating at least 2 models applying different predictive model techniques to predict the golden spent of a player in a given match. This dataset contains 50000 ranked ladder matches from the Dota 2 data dump created by Opendota. Dota 2 is a popular MOBA available as free to play, and can take up thousands of hours of your life. The number of games in this dataset are played about every hour. In this dataset, it includes the data about: abilities, abilities id, cluster regions, chat, player id, hero names, match outcomes, match, player ratings, purchases, teamfights, item id, player time.

**Introduction**

The gold in DOTA2 is very useful to buy items in the game or instantly revive your hero. If we can predict the gold spent in a match, we would be able to create different strategies, earn more money, or try to save money in order to win the match. That is why we believe in making a model to predict the gold spent in a match based on the different qualities of players of Dota2.

The first model to be applied to develop the predictive model would be KNN algorithm that will predict the golden spent based on gold of each player in the match, gold of each player per minutes, the number of kills the player has, the number of deaths the player has, total matches of the player have, the duration on average of the match, the time of the first blood. KNN algorithm will work by finding the distances between each observation and classifying accordingly with the other observations.

**References**

*Dota 2 matches*. Kaggle. (n.d.). Retrieved November 14, 2021, from https://www.kaggle.com/devinanzelmo/dota-2-matches.