Final Project Proposal– Group 9

Group members: M.A.C.R. Perera(s13566), V.M.D. De Mel (s13370), M.W.K.S. Rasantha(s13630)

Title: League of Legends Diamond Ranked Games (10 min)

Description of the problem: League of Legends is a multiplayer online battle arena video game developed and published by Riot Games for Microsoft Windows and macOS. In this game, players assume the role of a champion with unique abilities and battle against a team of other player or computer controlled champions. The goal is usually to destroy the opposing team's "Nexus", a structure that lies protected by defensive structures. This dataset contains the first 10 minutes' statistics of approximately 10000 ranked games. Players in the dataset are roughly from the same level. There are 19 features per team (38 in total) collected after 10 minutes in game. It will be an interesting task to predict the winner at an early stage as well as to analyze the game strategy.

Hence, the proposed objectives for this project will be,

1. To develop a predictive model to predict the winner of the game based on the facts from the first 10 minutes of the game. This could be used to give an early warning to the players so that they can make an attempt to change their strategies if their probability of winning is low.
2. To find the factors which have a higher impact on determining the victory of the game. These findings will be helpful for beginners and future players to play a good game.

About the data set:

Site: https://www.kaggle.com/bobbyscience/league-of-legends-diamond-ranked-games-10-min

No. of observations: 9879

No. of variables: 40

Variables with the description:

No.	Variable	Description
01	gameId	Unique RIOT ID of the game
02	Wins	1 if the blue team has won, 0 otherwise.
03	WardsPlaced	Number of warding totems placed by the blue team on the map
04	WardsDestroyed	Number of enemy warding totems the team has destroyed
05	FirstBlood	First kill of the game. 1 if the blue team did the first kill, 0 otherwise
06	Kills	Number of enemies killed by the team
07	Deaths	Number of deaths
08	Assists	Number of kill assists
09	EliteMonsters	Number of elite monsters killed by the team (Dragons and Heralds)
10	Dragons	Number of dragons killed by the team
11	Heralds	Number of heralds killed by the team
12	TowersDestroyed	Number of structures destroyed by the team (towers etc.)
13	TotalGold	Total gold
14	AvgLevel	Average champion level
15	TotalExperience	Total Experience
16	TotalMinionsKilled	Total minions killed
17	TotalJungleMinionsKilled	Total jungle monsters killed
18	GoldDiff	Gold difference compared to the enemy team
19	ExperienceDiff	Experience difference compared to the enemy team
20	CSPerMin	CS (minions) per minute
21	GoldPerMin	Gold per minute

Comments/Concerns:

There are two teams called blue and red. Each team has 19 similar attributes. Those two attributes along with Wins and gameId make the 40 variables.