Why Board Games:

Board games are on the rise with new venues popping up like Nerdvana, Game Theory Restaurant, and Farm+Feed. Where people can go and have dinner with friends and family and borrow a board game to play while they eat! These locations also allow for dungeon and dragon groups to go have a good time and eat and drink with their parties.

Board games are great for social interactions and even have very positive affects on people helping them interact with one another and teaching valuable skills be it either bluffing, planning, pattern recognition and probably most important of all it exercises one's ability to think critically. Being able to think on your feet and critically think and react to what is happening in real time is a skill that everyone should be armed with and practice as it can be used everywhere in your daily lives.

Our Goal:

Our goal was to take a deep dive into the world of board games to analyze different features and characteristics of different board games to get a better understanding of how people play and pick games and create a board game recommender so people can be exposed to more variety of games instead of just the most well known as Monopoly, checkers, or chess. With the recommender users will be able to input the game title of a game they like and get back recommended games that are similar to those that people might not know about, or have seen.

Data Exploration:

First, we took an overview of the data by breaking down games by publisher, mechanics, and genre so we could look to see what is currently popular or any useful trends. There are 1000s of different publishers, some publishers specialize in one type of genre while others due multiple types widening their demographics. With this insight we determined that Card games, economic games, and Adventure games are the most popular genre of games, while dice rolling, cooperative play, card drafting, and Area control are the most popular mechanics.

After we looked at the overview to enhance our area expertise, we took a closer look at the top 100 games to see if there were in commonalities. While we looked at the genre and mechanics again, we also took a closer look at the complexity of the games and the time it takes to play them. There was an interesting outcome with that in that the complexity of the game doesn't always dictate the time it takes to play a game. There were several games that have a low complexity but could still take up to 1,050 minutes to play, which translates to 17 and a half hours of game time. This deep dive also showed us that popularity doesn't necessarily translate to ranking of game play with games rank in the 80's or 70's has much more popularity than the number one ranked game (Gloomhaven).

Results:

Boardgame Recommender:

Armed with our new knowledge about boardgames we were able to select key features from our data that could be used to recommend more boardgames. We successfully created a Knn recommender model that can suggest 10 games to the end user and give them information about the game so they can make an informed decision on what they are going to play next. The recommender also allows for some extra filters based on rating and the number of people that already own the game, so if someone wants to find a niche game that is like something they like to surprise their gaming group they can!

This will help people find new popular games to try and purchase as well as help lesser known games more attention and get financial backing.