**Design Diagram D0:** In this diagram, the user, which is a square box, uses the College Sports + application, represented by a circle, to play NCAA Fantasy Football, which then leads to the user having fun, with the two goals represented by the cloud. The arrows represent the flow of the application.

A green and black outline of a green object

Description automatically generated with medium confidence

**Design Diagram D1:** This diagram expands on diagram D0 by adding the front-end and back-end distinction of the application. The front-end, represented by the circle, allows the user to create an account and draft players for fantasy while the back-end, represented by ovals, stores user information and calculates individual player scores to see who wins. The arrows represent the flow of the application.

A diagram of a company

Description automatically generated

**Design Diagram D2:** The D2 diagram further expands the design specifications of the D1 diagram by adding outside APIs, seen in similar rectangles to outside users, into the diagrams. There are two APIs which will be used by the application. The first is a third-party API called Sportsradar, which will help the back-end get player statistics and records so that a predictive model of player performance can be calculated. This model will then be used to calculate each player's individual score, which will eventually determine which team wins in a given week. The second API is a FastAPI endpoint made specifically for communication between the front-end and back-end. User information will be sent via FastAPI to the back-end so that it can be stored in a database, seen as the cylinder. The back-end will then calculate all of the relevant player information and send that data back through FastAPI so that the font-end can properly display what is happening in the game.

A diagram of a diagram

Description automatically generated