

The National Basketball Association (NBA) is an organization filled with players, teams, coaches, games, and various roles interacting to form the best professional basketball league in the world. This class diagram focuses on modeling the relationships and behaviors of different bodies within the NBA system. It will mainly represent an overview of how players, teams, staff, and game-related data are structured and connected with one another. This model makes it simpler to comprehend, maintain, and maybe even develop NBA-related software systems in the future by taking real-world roles and processes into individualized classes. This approach also helps simulate real-time interactions such as games, team management, and statistical updates.

The goal of this solution is to offer a straightforward object-oriented structure for handling NBA data, including coaching duties, player statistics, and team rosters. Though it won't cover all the business side of the NBA like ticketing, media rights, or arena management, it will focus on game operations, player management, and coaching staff. This will include examples of inheritance and multiple inheritance to reflect shared behavior across different classes/roles in the NBA. The structure is designed to be scalable, so additional classes and functionality like referees or trades could be added in the future without disrupting the core design.



