

1:1 Example (you make full ERD)

- Every team has a head coach, and only one head coach. Every head coach that we record in our database is in charge of only one team. We want to record the head coach's ID, start date, first name and last name. We want to record the team's name, mascot, and city.

1:Optional (you make simple and full ERD)

- Every player is eligible for a scholarship, but many do not receive them. Every scholarship exists in the database, with an amount associated with it, regardless of whether the scholarship has been awarded. We want to record the player's ID, name, height, and weight. In addition to the amount each scholarship has an ID, expiration, start date, and a minimum GPA requirement.

Practice Case – Book of Life LLC.

Book of Life, LLC (“BoL”) has decided to start using databases to track its many clients. Each of their clients either has, had, or will have a mortal body. That mortal body has a birthdate, expiration date, and name. While in the mortal body, clients are prone to commit many sins, and every sin is committed by at least one client. At the end of the client’s mortal engagement, they must return to BoL’s offices to review BoL’s records on their mortal life. BoL would like to track the client’s name (which may differ from the name of the mortal body) and gender (which is eternal); the type and severity of each sin, as well as whether a particular sin has been resolved properly.

Practice Case – Ranch ERD

Each ranch has many livestock. Livestock belong to a single ranch at any given time. Each livestock is tagged with at least one tag, but each tag only ever belongs to a single livestock at a time. Each ranch usually has a ranch manager, but not always. Every ranch manager only manages one ranch at a time. Every ranch has at least one ranch hand (worker), and each ranch hand has the option to work at multiple ranches. Ranch hands have a maximum allowed hours and an hourly rate that differs from ranch to ranch. The database needs to track the following: Ranch license, ranch address, ranch type; ranch manager name and phone; ranch hand employee ID, phone and email; livestock ID, age, gender, type; tag ID and tag type; maximum allowed hours and the hourly rate for each ranch hand at each ranch.