

Laboratory Exercise 1 – ER Real World Model

The following are the user requirements for a tennis tournament and match management system. Read the given text, analyze the requirements, and propose a solution in the form of an ER diagram. Find and choose an online resource (application) for drawing ER diagrams (when choosing, ensure that the selected application can properly display cardinality and participation constraints in the ER diagram). Suggested online resource: <https://www.draw.io/>.

The database stores information about participants, identified by name, surname, gender, passport number, country of origin, and date of birth. The participants can be players, coaches, and referees. Players, after ending their careers, can become coaches but cannot be referees. There are also other participants for whom information is not stored in the database. For players, information is kept about the year they began playing professional tennis, as well as their ranking position on the official list (WTA/ATP ranking). The history of all ranking positions for a player is stored, so the start and end date for each ranking position are known. For the coaches, information is stored about the players they are or have been coaches for in the past. For the referees, additional information is stored about their experience in years.

For each tournament there is information for its name and type (Grand Slam, WTA1000, ATP1000), as well as the best player in the tournament's history (the player with the most wins in the tournament is considered the best player). Tournaments are held on tennis courts, identified by their name, type, and the number of seats. A single court can host multiple tournaments. Tournaments are held each year, where for each tournament there is an information about the hosting period and the sponsors. The database also stores information on matches held within these tournaments, specifying for each match the two players, the referee, the start and end time of the match, and the final result.

For each pair of players, the head-to-head record is stored, storing the number of wins each player has against the other. The database also stores information of the training sessions, specifying which player trained, on which court, with which coach, and on which date (day, month, year, and time).

Using the chosen online application, draw your ER diagram based on the given requirements.