Lab 05 | ER Diagrams

IT214 Database Management System, Autumn'2018; pm_jat

This week you create ER Diagrams for given case studies. Use software Dia (http://dia-installer.de/) for creating ERDs.

1. Suppose you are given the following requirements for a simple database for IPL, construct ER diagram
   - IPL has many teams
   - each team has a name, a city, a couch, a captain and set of players
   - each player belongs to only one team
   - each player has a name, specialty (bowler, batsman, all-rounder), a skill level, and a set of injury records (with timestamp).
   - a game is played between two teams (referred to as host_team and guest_team) and has a date and match result

2. Consider a scenario where you are organizing an inter-university gliding competition, and you have decided to design a database to keep track of the administration of the competition.

   A number of universities have each entered a team in the competition and one of the things you need to keep track of is whether or not they have paid the entry fee. Each university team consists of a variable number of people who will take part in the competition; everybody who competes must be a member of one of the teams.

   The pilots will have different levels of experience.

   There are a number of different types of glider involved in the competition. Each glider has a sitting capacity. There may be more than one glider of a particular type, but every glider can be distinguished by its callsign — a short string which is used to identify it in radio communications.

   The competition is organized around tasks, which are routes that each competing glider must attempt to fly around from its recorded start time and start height. On each competition day a task is set for the pilots to fly in their gliders. The task is defined by choosing a set of turning points. There are almost a thousand such turning points and each has a unique trigraph or three-letter acronym to identify it. Each turning point has latitude and longitude along with it so that their position can be precisely identify on map.

   Each pilot with their glider and assigned task is judged and is given a score out of 100.

   Construct an ER diagram for the above given description.