LAB – TERMWORK – 1

Problem statement

Suppose you are given the following requirements for a simple database for the National Hockey League (NHL):

- the NHL has many teams,
- each team has a name, a city, a coach, a captain, and a set of players,
- each player belongs to only one team,
- each player has a name, a position (such as left wing or goalie), a skill level, and a set of injury records,
- a team captain is also a player,
- a game is played between two teams (referred to as host_team and guest_team) and has a date (such as May 11th, 1999) and a score (such as 4 to 2).

- Design a ER-Model for this application scenario using all the standard notations of ER-Model.

List the entities

- Read the problem carefully and find out the entities

List the entities

- TEAM
- PLAYERS
- INJURY

List the ATTRIBUTES

- TEAM
- PLAYERS
- INJURY

List the ATTRIBUTES

- TEAM-coach,**tid**,state,tname
- PLAYERS-**pid**,player_name,age, position, skill
- INJURY- date, injury_description, severity_level

List the ATTRIBUTES

- TEAM-coach,**tid**,state,tname
- PLAYERS-**pid**,player_name,age
- INJURY- date, injury_description, severity_level

  - Injury does not have a key attribute of its own.
  - It is dependent on player entity.
  - So injury is a weak entity.

List the RELATIONS

- Team PLAY_MATCHES with Team
- Player captain_of team
- Player belongs_to team
- Player has injury / Player logs injury / player encountered injury

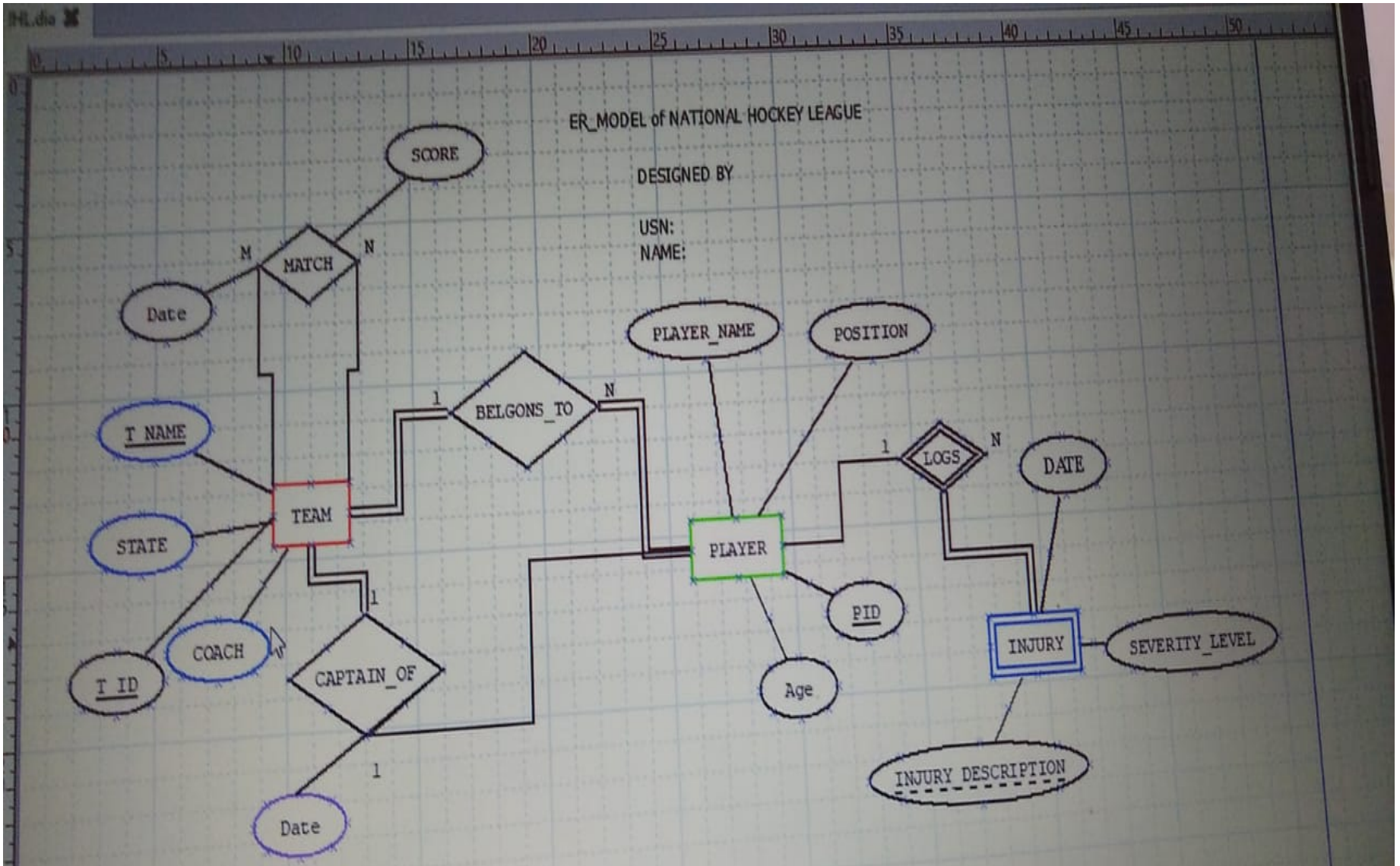
List the RELATIONS & CARDINALITY

- Team PLAY_MATCHES with Team(M:N)
- Player captain_of team(1:1)
- Player belongs_to team(N:1)
- Player has injury / Player logs injury(1:N)

ER Diagram

- We know entities
- We know attributes
- We know relations
- We also know cardinality

  - Plot the ER diagram in the dia tool….


ER_MODEL of NATIONAL HOCKEY LEAGUE
DESIGNED BY
USN:
NAME:
SCORE
MATCH
M
N
Date
PLAYER_NAME
POSITION
BELGONS_TO
1
N
T_NAME
LOGS
1
N
DATE
TEAM
STATE
PLAYER
PID
1
COACH
CAPTAIN_OF
INJURY
SEVERITY_LEVEL
T_ID
Age
1
INJURY_DESCRIPTION
Date