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Registration No# 16549

Semester: 6th

Sessional Assignment: Data Base Theory

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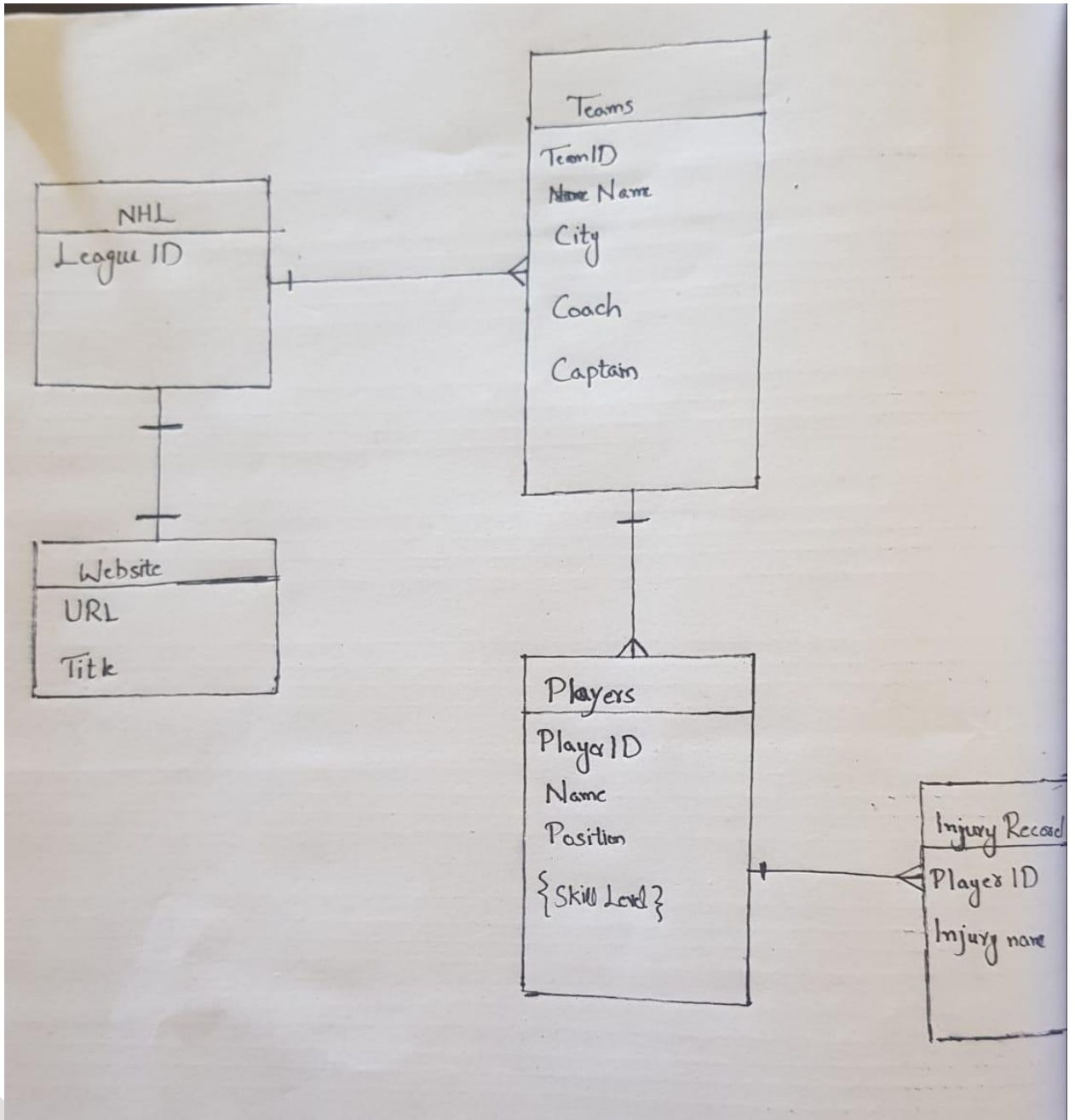
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Q1: Using the following business rules create your own ERD.

Following requirements for a simple database for the National Hockey League (NHL):

- the NHL has many teams,
- these teams only belong to NHL
- 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.
- NHL has an official website.
- The website has a unique URL and title.

Answer is below:



Q2: Now convert the ERD made in Q1 to Rational Model.

Answer:

(a)The relation of NHL and Website are one to one (1:1)

And the primary key is the League Id

(b)The relation between NHL and Website is one to one (1:1) no null value in foreign key this because of the mandatory minimum cardinality (so we add foreign key is League id).

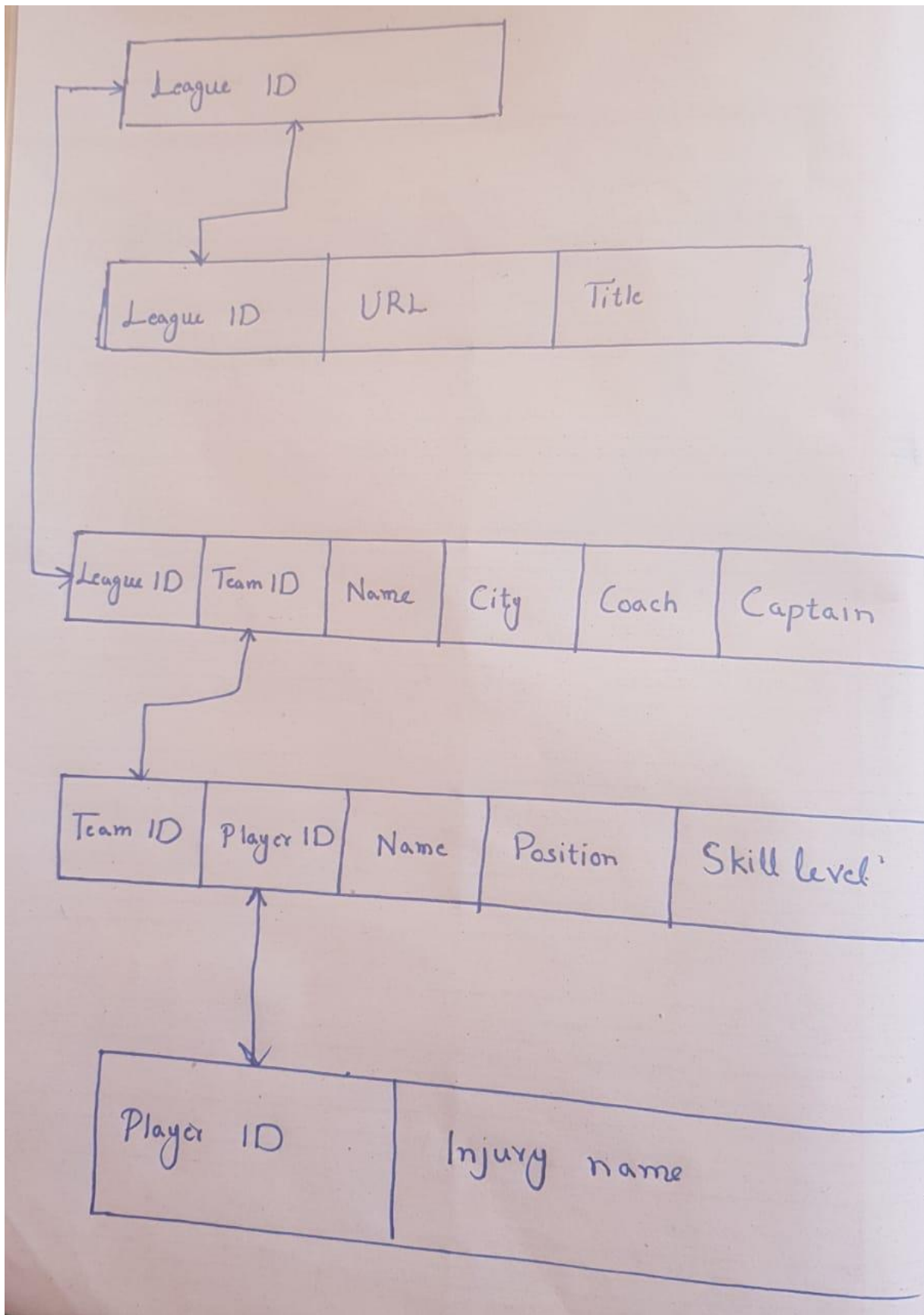
(c) The relation between NHL and Teams is one to many(1:M) no null value in foreign key this because of the mandatory minimum cardinality (so we add foreign key is League id).

(d) The relation between Teams and Players is one to many (1:M) no null value in foreign key this because of the mandatory minimum cardinality (so we add foreign key is Team id).

(e) The relation between Players and Injury Records is one to many (1:M) so in Injury Record already have the Foreign Key which is player id and primary key between Players and Injury Records is Player id.

So, there is no need of mandatory minimum cardinality in this case.

Diagram is below:



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