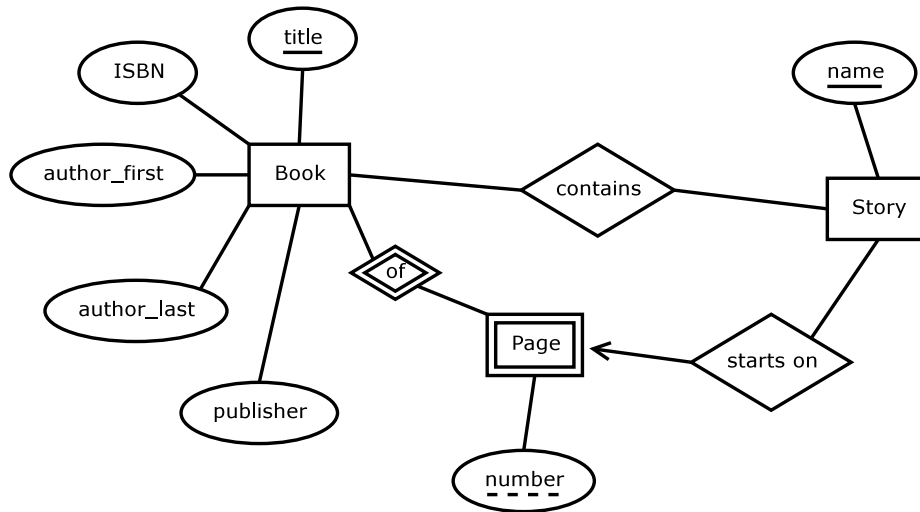


Homework 10

Due: 2 Nov 2007

Problem 10.1

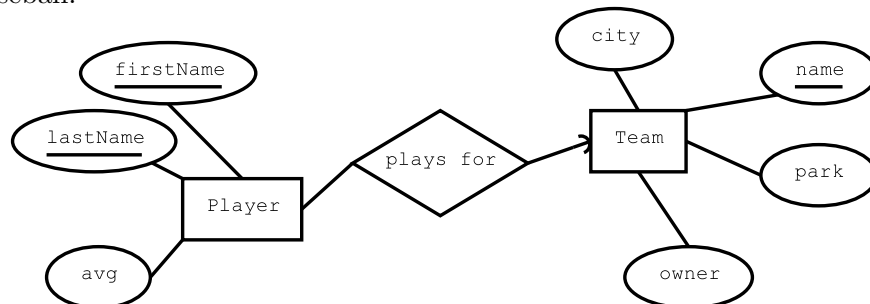
Critique the database design below:



What is reasonable about it? What is bad? Where the design is bad, cite principles that it violates.

Problem 10.2

Consider the following E-R design for storing some simple information about baseball:



and the corresponding relational database schema:

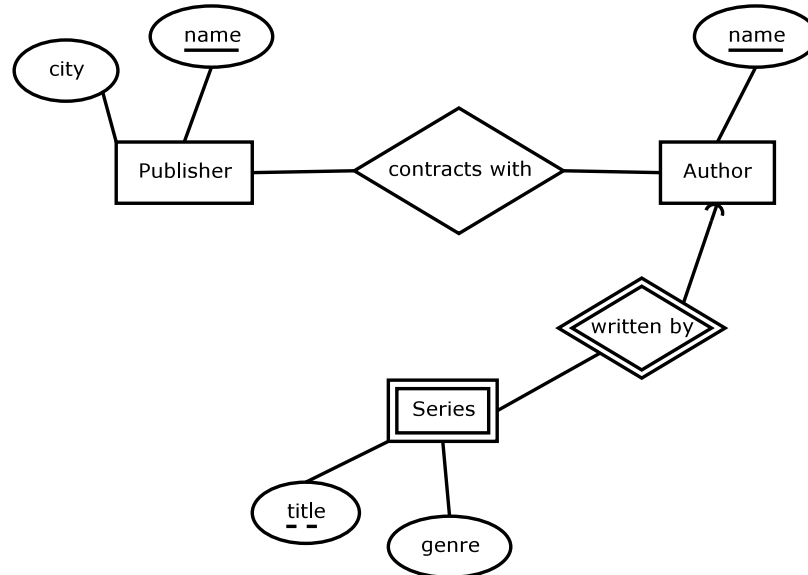
Player (first, last, avg, team)
 Team (name, city, park, owner)

Write the following queries in the relational algebra (not SQL):

- A list of the full names (i.e. first and last name) of all players in the database
- A list of all the teams that have any players with a $> .333$ batting average
- Player names and averages for all the Chicago teams¹

Problem 10.3

Design a relational schema for the following E-R diagram:



¹As a point of interest, Chicago has two major-league baseball teams, the Cubs and the White Sox, but you don't really need to know this for the problem.