Zachary Taylor CSSE333

HW 1

Ch 1

1.10

All relationships F1.2

relationship between:

student : course
professor : course
section : course

we might want to track parts of majors and courses so there could be a relationship between

Major : course

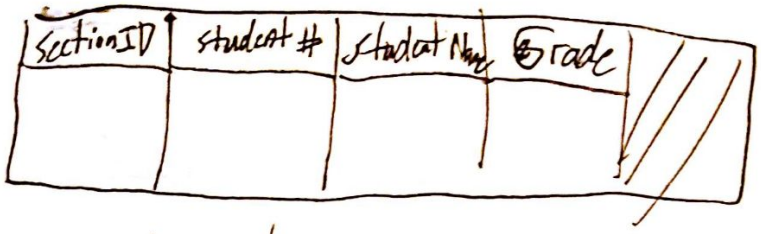
Additionally

student : section

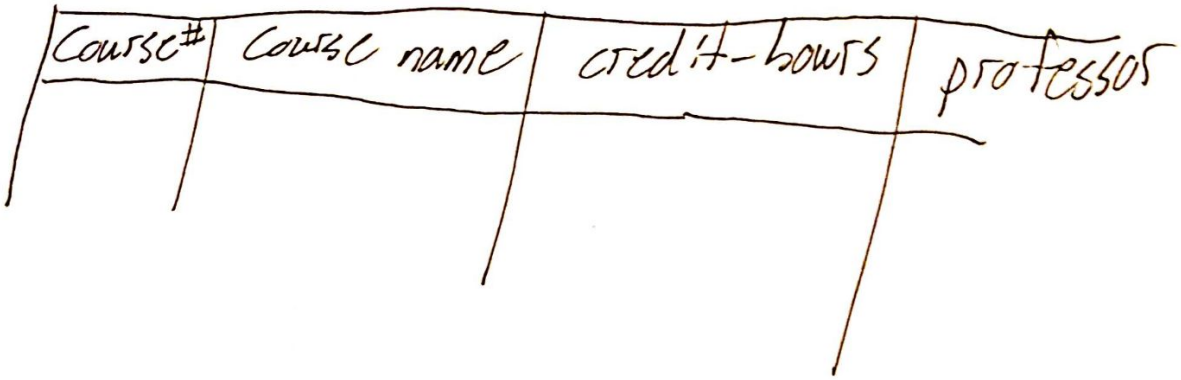
1.11

Additional views

Professor



Department view



1.12

integrity constraints.

1. Grade $\in \{A, B, C, D, F\}$
2. if you fail a pre-req remove them from the course.
3. Course number prefix must be the same a department.

ch2

2.14

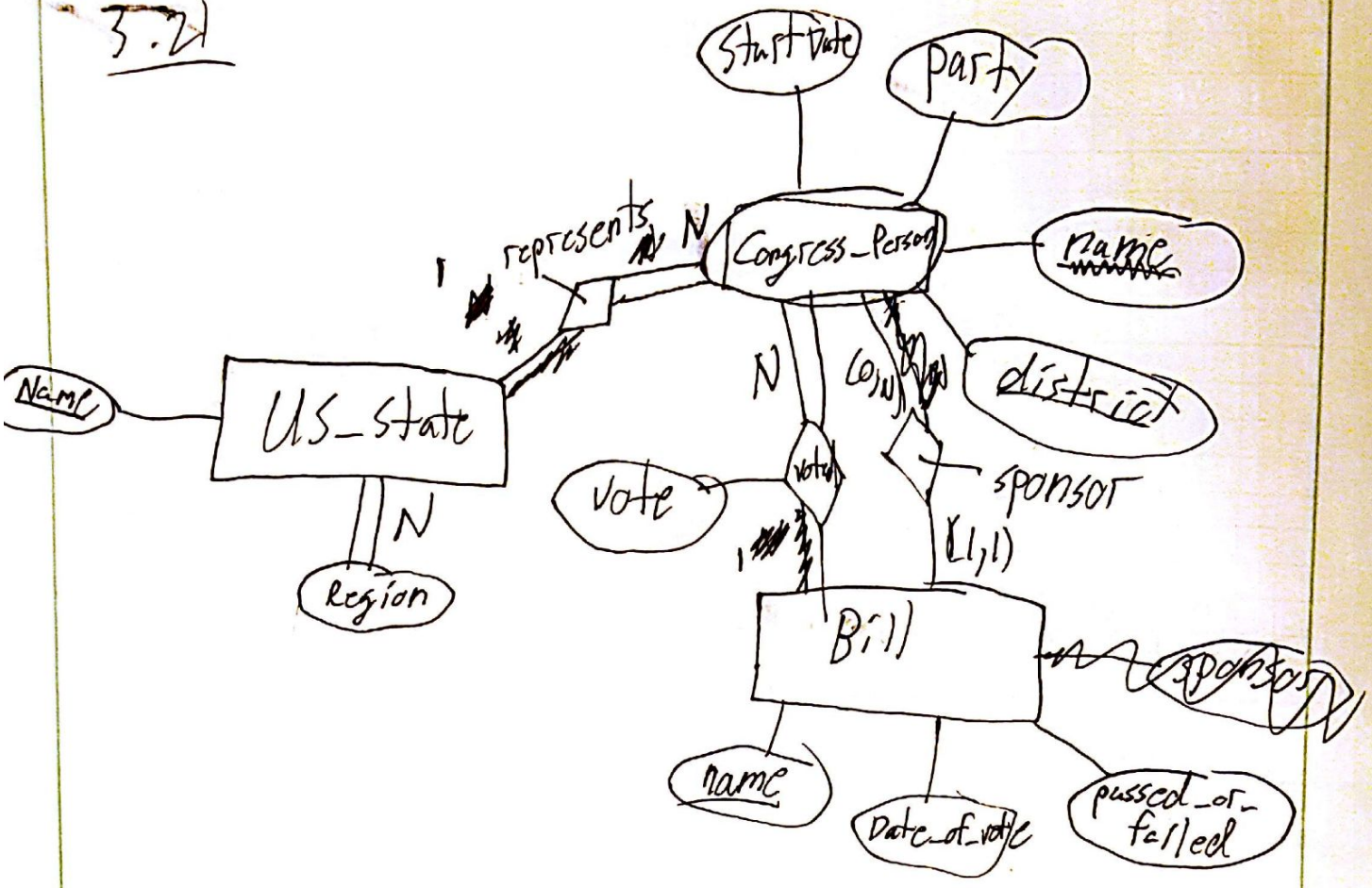
A three tier DBMS. Logically it is appropriate to have a gui that users interact with which connects to a web server that can validate user requests and credentials that then passes these requests to a database, as seen in figure 2.7.

A single tier does not work as a user may demand something from an airline database that it should not provide, additionally the user would have to directly interface w/ the database. Two-tier suffers from a credentials issue.

I assume district ≠ region

ch. 3

3.21



Legend

a —1— ◇ —N— b (is read a has N b)

Notes

passed_or_failed is {"yes", "no"}

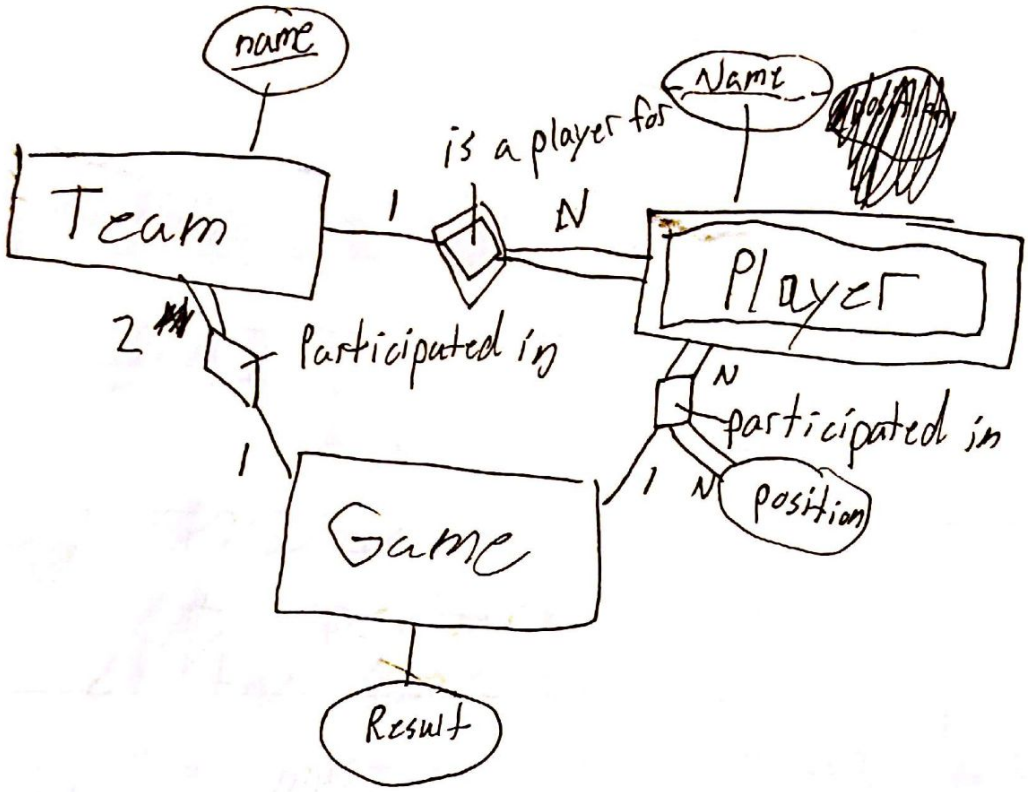
vote is {"yes", "no", "abstain", "absent"}

Party is {Republican, Democrat, Independent, Other}

Region is {Northeast, Midwest, southeast, Southwest, west}

3.22

soccer I Assume A ~~star~~ team has only one players of a given name



Legend

a 1—◇—N b (is read a has N b)

Notes

Result is ∈ {team names}

position is {"striker", "fullback", "halfback", "goalie"}

3.23

a) bank, account, Loan, customes

b) bankbranch,

Partial Key — Branch_no

IDR — Branches

c) ~~allows two banks to have the same address.~~ specifies between two banks

You must specify an additional bank_no which exists as a bank