CS 340 HW 1

Pratiksha Aga

TOTAL POINTS

45 / 50

QUESTION 1

1 Problem 1 17 / 20

Relationship

✓ **- 1 pts** 1 error

unique/keys

✓ **- 2 pts** 2 or more errors

1. Primary key
2. Primary key
3. Primary key
4. Relationship is lists and date is an attribute on relationship
5. Missing manages sales office relationship
6. A Property may be listed in 1 or more sales offices
7. A sales office may have 0 or more properties

QUESTION 2

2 Problem 2 18 / 20

Entities

✓ **- 0 pts** Correct

Relationship

✓ **- 1 pts** 1 error

Attributes

✓ **- 0 pts** Correct

Cardinalities

✓ **- 1 pts** 1-2 errors

unique/keys

✓ **- 0 pts** Correct

8. Missing work_on relationship that connects Chemists and Project.
9. You haven't assigned a cardinality.

QUESTION 3

3 Problem 3 10 / 10

When to use DBMS full credit

✓ **+ 4 pts** Full credit

+ 2 pts Partial credit

+ 0 pts Missing

When to use "flat file"

✓ **+ 4 pts** Full credit

+ 2 pts Partial Credit

+ 0 pts missing

Examples

✓ **+ 2 pts** Full

+ 1 pts partial

+ 0 pts missing

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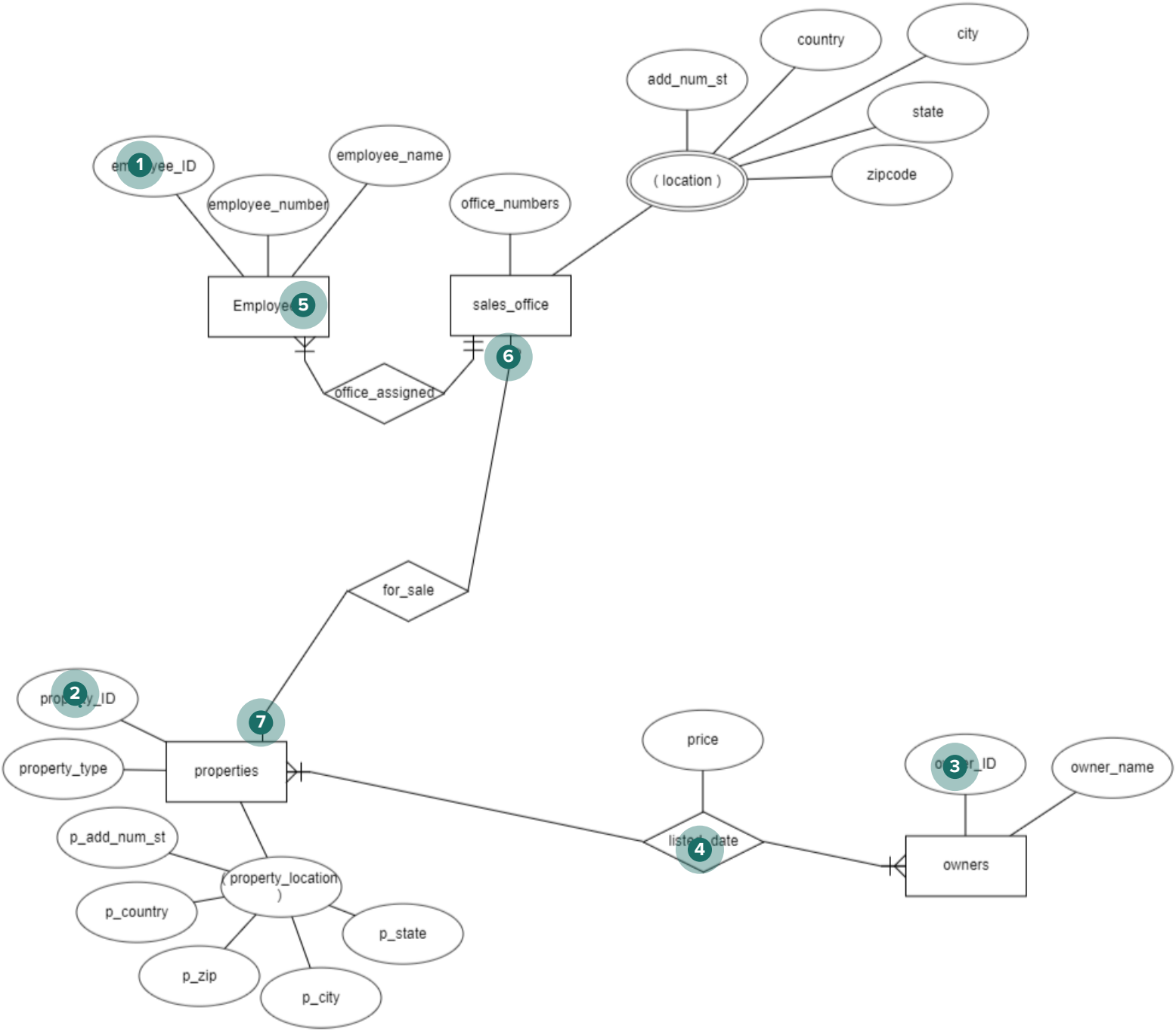
country
city
add_num_st
state
(location)
zipcode
employee_name
employee_number
office_numbers
sales_office
office_assigned
for_sale
property_type
properties
price
owner_name
owners
p_add_num_st
property_location
p_country
p_state
p_zip
p_city

1 Problem 1 17 / 20

Relationship

✓ **- 1 pts** 1 error

unique/keys

✓ **- 2 pts** 2 or more errors

1. Primary key
2. Primary key
3. Primary key
4. Relationship is lists and date is an attribute on relationship
5. Missing manages sales office relationship
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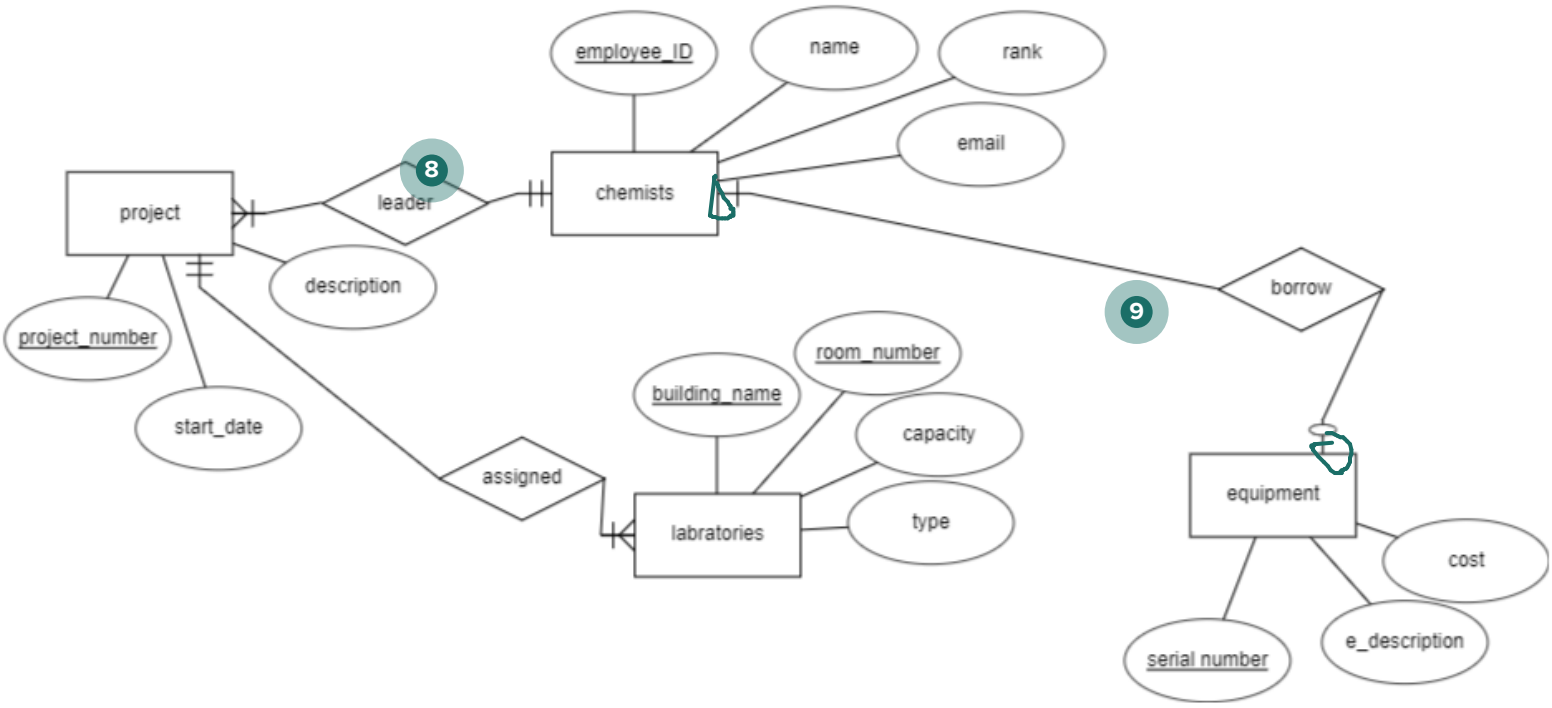
gradescope


employee_ID
name
rank
email
chemists
8
leader
project
description
project_number
start_date
9
borrow
room_number
building_name
capacity
assigned
labratories
type
equipment
cost
serial number
e_description

2 Problem 2 18 / 20

Entities

✓ - 0 pts Correct

Relationship

✓ - 1 pts 1 error

Attributes

✓ - 0 pts Correct

Cardinalities

✓ - 1 pts 1-2 errors

unique/keys

✓ - 0 pts Correct

8 Missing work_on relationship that connects Chemists and Project.

9 You haven't assigned a cardinality.

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When would you store data in a DBMS instead of in operating system files and vice-versa? What are the advantages and disadvantages of each? Give several examples.

- Windows applications or apps that use structured data, we need to store data in the DBMS format, by which data is stored, processed and visualized. As for web applications such as Instagram that handle huge amounts of data can not use DBMS, whereas that will deal with unstructured data.
- In the operating system the data can be stored in the form excel or csv files, currently in my OS class we are using C, and reading CSV files and using that data. Which can be transformed or cleaned using machine learning algorithms.
- Advantage is that the data can be organized and stored in a nice retrieving place, such as in SQL server. The disadvantage is that data storage is complex as it does not have a data dictionary about the data, as in text files.
- There is data security as an advantage
- The disadvantage of heterogeneous data like csv files is that the data stored in text files has to go through data migration to analyze data.

3 Problem 3 10 / 10

When to use DBMS full credit

✓ **+ 4 pts** **Full credit**

+ 2 pts Partial credit

+ 0 pts Missing

When to use "flat file"

✓ **+ 4 pts** **Full credit**

+ 2 pts Partial Credit

+ 0 pts missing

Examples

✓ **+ 2 pts** **Full**

+ 1 pts partial

+ 0 pts missing

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