

Team members name: Arman Askari Zadeh, Pierre Saladino

Team: 30

Project title: Manufacturing Tool Services tracker

Feedback by the peer reviewers

Gabriel Kulp

Benjamin Geyer

Kirsten Carter

Does the overview describe what problem is to be solved by a website with DB back end?

Yes, the overview provides enough information.

Yes, the project solves the problem of keeping track of which employees have used which tools.

Yes, it is to keep track of what tools have been used which employees, when a tool was last serviced, and what work needs to be done in the future.

Does the overview list specific facts?

Yes, but not all the facts. Certifications are described in the schema but not the overview.

The overview lists the overall goal of the project, but it could benefit by providing more specific facts such as how many employees would use the tracker, how many tools would be registered, how frequently do employees use the tools, etc.

There are over all facts, but no specific examples of a use case or how many tools the database would be expected to handle. It would be nice to have a general idea of the size of the company that would use this such as a small business or more like a large manufacturing company.

Are at least four entities described and does each one represent a single idea to be stored as a list?

There are four entities, but it might be a stretch to have a separate "EmployeeTypes" entity from the "Employees" entity. Shouldn't that just be an attribute? Also "EmployeeCertifications" should just be "Certifications" for clarity with the associated M:M table.

Yes, the entities are Employees, EmployeeTypes, Tools, and EmployeeCertifications. Each one represents a single idea and would be stored as a list.

Yes: employees, employee_types, tools, employee_certifications

Does the outline of entity details describe the purpose of each, list attribute data types and constraints and describe relationships between entities? Does the outline clearly indicate which entities (tables) will be implemented and which team member is primarily assigned to the associated page(s)?

The outline describes relationships, but not which will be implemented or by whom.

The overview describes some of the entities (Employees and Tools) but they are not described much further in the outline. EmployeeTypes and EmployeeCertifications are also lacking descriptions. The relationships between entities are described, and the data types/constraints are listed for each attribute. It does not indicate if only specific tables will be implemented (presumably all will be implemented) and it does not indicate who will be assigned to the associated web page.

Yes to a degree. The outline it's self contains various entities it is tracking, but does not state why they are being tracked and what purpose tracking them serves. For example, there is a M:M relationship

between employees and employee certifications but the outline does not state why that needs to be tracked. It is not outright stated what group member will work on which areas.

Are 1:M relationships correctly formulated? Is there at least one M:M relationship?

Yes, but the M:M table doesn't show up in the schema.

The 0:M relationship between Tools and Employees from the outline is missing a FK (I think either Employees or Tools should have a FK). It seems somewhat inconsistent as the ERD shows a M:M relationship between the two and a M:1 between Employees and Employee_Types. There is a M:M relationship between Employees and Employee_Certifications. A M:M relationship between Employees and Tools is also described in the outline and ERD but is not shown in the schema.

Yes, but I'm not sure the M:M relationship between tools and employees is shown. There seems to only be a connection from employee certifications to tools.

Is there consistency in a) naming between overview and entity/attributes b) entities plural, attributes singular c) use of capitalization for naming?

Inconsistencies in M:M names. If A and B have a M:M relationship, that should be held in a table called A_B.

The naming seems to follow the general convention of uppercase words with underscores for entities and camel case for attributes. The entities are all plural and the attributes are all singular. The naming is mostly consistent, however a couple of the attributes in the outline are capitalized.

Yes

Actions based on the feedback

List briefly the actions that you chose to take based on the above feedback. If you decided not to act on a specific suggestion, you need to describe in detail your reasoning.

- Added facts to the overview
- Defined each entities
- Assigned each member a specific area
- Added a M:M schema table

Upgrades to the Draft version

Overview: A manufacturing tool service tracker that logs the history of who serviced the tool last. When many employees use the same tool, it is hard to keep track of what has been done. The service tool tracker would track what each employee has done before. The database that would be designed in this project would help to keep track of the work that has been done and what needs to be done in the future. To construct this database we need to have information about the employees and the tools. Certifications need to be tracked so that the correct personnel is used for the job. This prevents errors from someone working on a tool aspect who is not qualified. A service tracker would be suitable for large manufacturing companies that are constantly adding more tools.

Database Benefits

- Keeping employees accountable
- Keeping track of work
- Finding the errors that have happened and the responsible person
- Helping with the maintenance of the tools
- Scalability of adding more tools
- Minimizes errors from unqualified personnel

People Responsibility

Both team members will be working on the code and sharing the same responsibilities.

Database Outline

Entities

- Employees: people that will use the tools
 - userID (Primary Key)
 - firstName
 - lastName
 - Email
 - 1:1 between Employee_Types
 - M:M between tools

- M:M between Employee_Certifications

- EmployeeTypes: specifies the position of each employee
 - Type (memberOf/Manager)
 - 1:1 between Employees
- Tools: machines that people will use
 - toolID
 - toolGroup
 - 0:M between Employees
- EmployeeCertifications: specifies the level of each employee
 - certID
 - certTitle
 - M:M between Employees

| Employees | |
|-----------|--|
| userID | INT, AUTO INCREMENT, UNIQUE, NOT NULL, PRIMARY KEY |
| firstName | VARCHAR, NOT NULL |
| lastName | VARCHAR, NOT NULL |
| email | VARCHAR, NOT NULL |

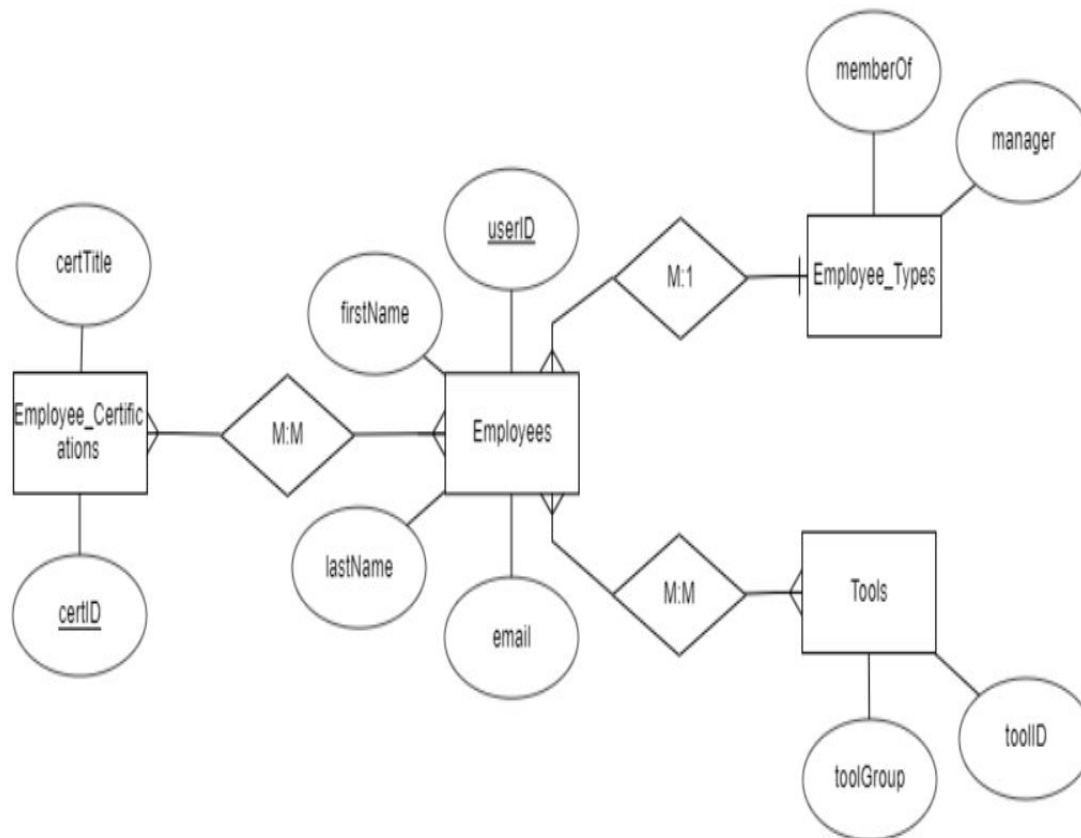
| Employee_Types | |
|----------------|---------------|
| type | INT, NOT NULL |

| Tools | |
|-----------|-----------------------|
| Tool ID | INT, NOT NULL, UNIQUE |
| ToolGroup | VARCHAR, NOT NULL |

| Employee_Certifications | |
|-------------------------|------------------------------------|
| certID | INT, NOT NULL, UNIQUE, FOREIGN KEY |
| certTitle | VARCHAR, NOT NULL |

| userID_Certs | |
|--------------|------------------------------------|
| userID | INT, NOT NULL, UNIQUE, FOREIGN KEY |
| certID | INT, NOT NULL, UNIQUE, FOREIGN KEY |

C) Entity-Relationship Diagram:



D) Schema:

This schema should follow the database outline and the ER diagram exactly. It will be graded in the Final Version for this Step on the extent with which it matches the database outline, with an emphasis on whether the relationships, tables, and keys are set up correctly. You may use the tools listed on [Tools for this course](#), or draw by hand and upload a scanned legible copy. Please stick to the notation from Week 3.

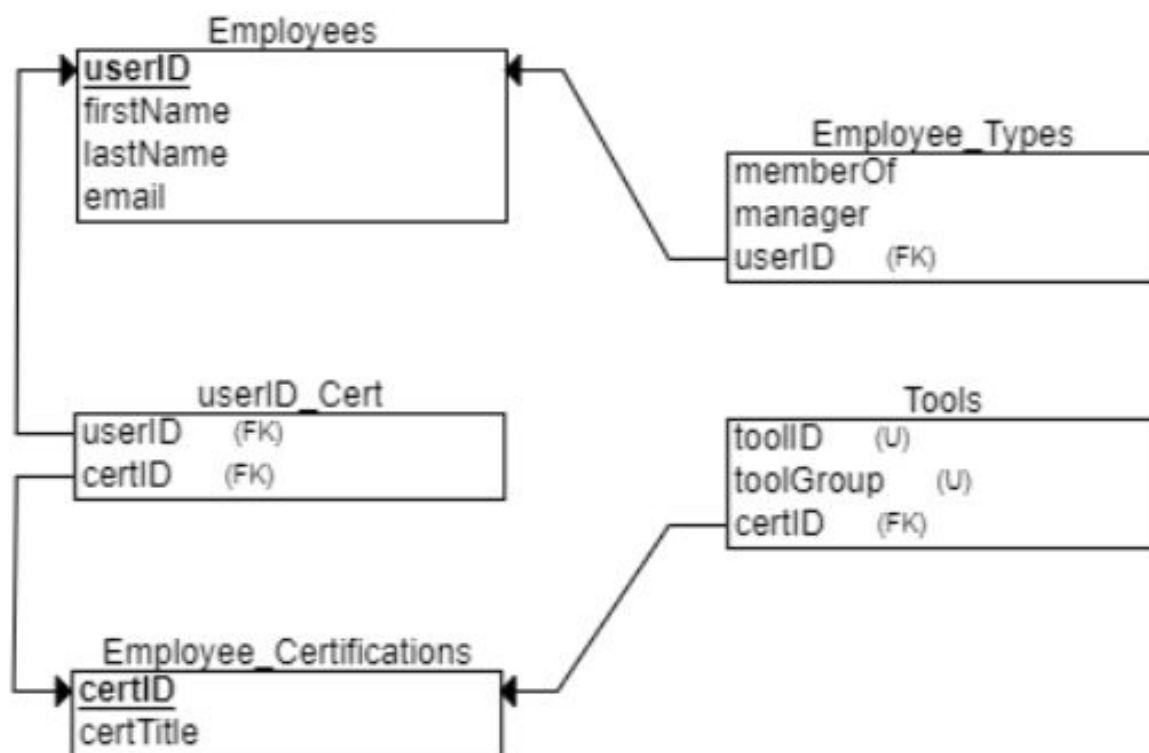
```
Employees(  
  userID,  
  firstName,  
  lastName,  
  email  
)
```

```
Employee_Types(  
  memberOf,  
  manager  
)
```

```
Tools(  
  toolID,  
  toolGroup  
)
```

```
Employee_Certifications(  
  certID,  
  certTitle  
)
```

```
userID_Certs  
userID,  
certID  
)
```



Team evaluation form

1 = Strongly Disagree

2 = Disagree 3 = Agree

4 = Strongly Agree

| | | |
|--|-------------------------------------|---------------------|
| Group number | 30 | |
| Name of Group TEAM Members: | Arman Askari Zadeh, Pierre Saladino | |
| SCALE AND COMMENTS | RATING | ADDITIONAL COMMENTS |
| HoW Prepared was your team? Research, reading, and assignment complete | 4 | |
| How responsive & COMMUNICATIVE were you both as a team? Responded to requests and assignment modifications needed. Initiated and responded appropriately via email, Slack etc. | 4 | |
| Did both group members Participate equally Contributed best academic ability | 4 | |
| DID YOU BOTH FOLLOW THE initial team CONTRAct? Were both team members both positive and productive? | 4 | are |

Are there any suggestions for improvement for your team and what are your goals moving forward?

(Better communication, follow the contract better, modify the initial team contract, more contribution, etc?)?