ClassHackathon-1

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Q1.

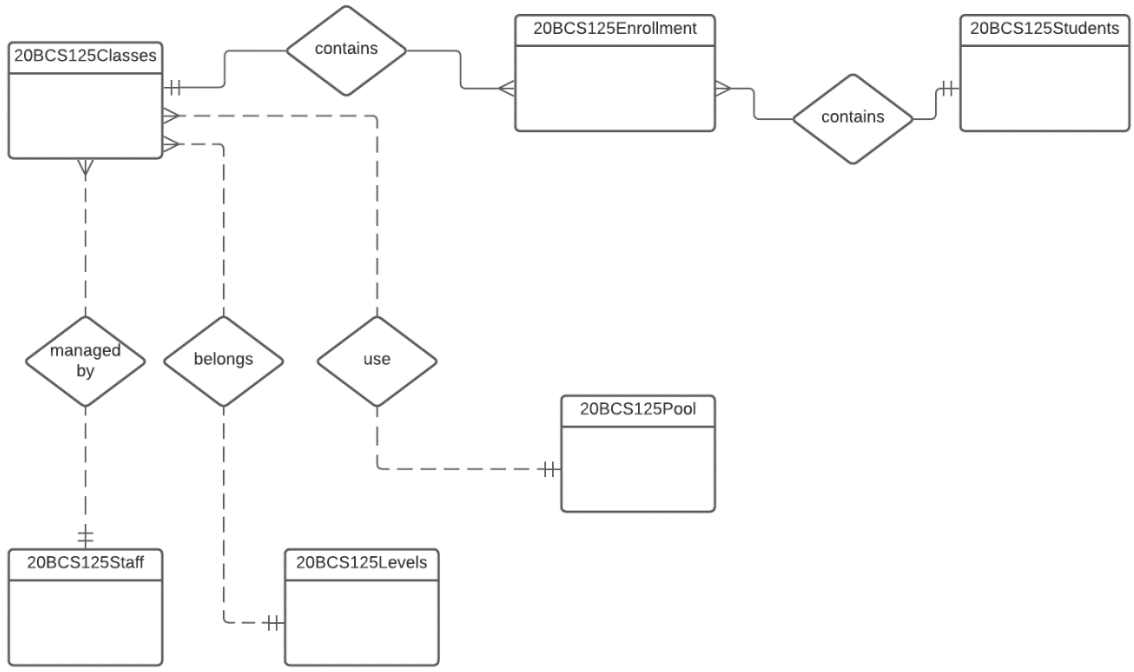
There is a Swimming Pool that needs to have a database to store various information regarding it like Student info, Teacher info, Level of the pool, Staff info, Pool info, Enrollment info, etc. To store all this information, we have created a Database with various relations, We have created a relation called Levels which is used to store the level and class name as attributes. We have created a relation called Pool which is used to store the details about the pool including its name, location, and pool as its attributes.

To store the details of the staff working in the Swimming Pool, we have created a Staff relationship that holds the details of staff with FirstName, MiddleInitial, LastName, Suffix, Salaried, PayAmount, and StaffID as its attributes.

Next, we have created a relation Classes that stores the various details about the class like level, Lesson Index, Instructor, days, time, Semester, etc.

We have also created an Enrollment relation that holds details of Lesson Index, Status of enrollment, SID, Enrollment date and amount paid, etc. in its attributes.

We have created a relationship to hold the personal details of all the students of the Pool. This relation stores the SID, First Name, Middle Name, Birthday, Address, Phone no. etc details in its attributes.



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Q2.

Degree:

Classes and Enrollment have a Binary relationship.

Classes and Staff have a Binary relationship.

Classes and Pool have a Binary relationship.

Classes and Levels have a Binary relationship.

Students and Enrollment have a Binary relationship.

Cardinality:

Students – Enrollment has 1: N

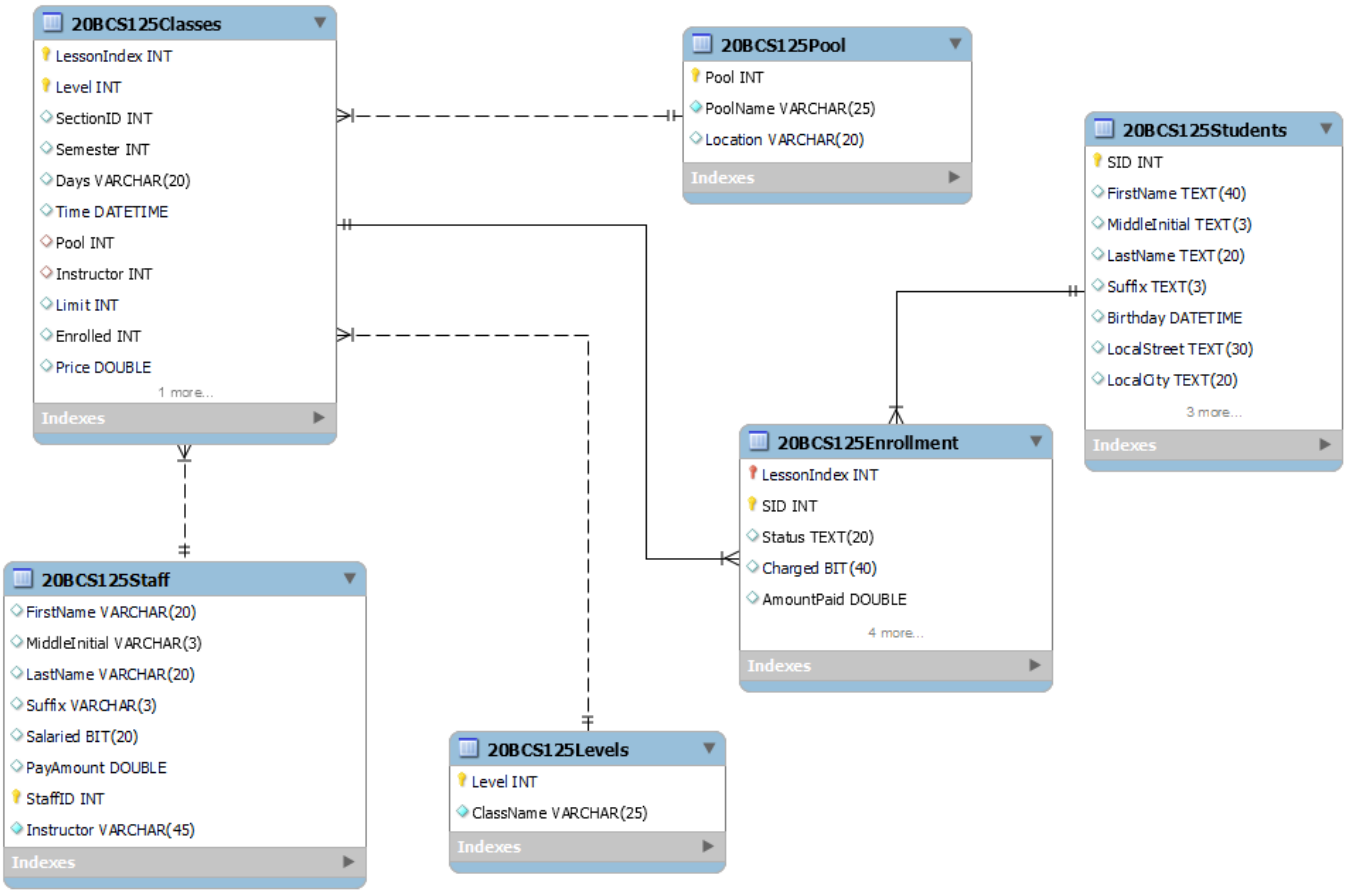
Classes- Enrollment has N:1

Classes- Pool have N:1

Classes- Level have N:1

Classes- Staff have N:1

Q3.



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Q4.

Enrollment would be a weak entity if you didn't modify and made it as given by ma'am. Its Primary Key consists of 2 Foreign Keys and no attribute of its own, meaning it is reliant on those 2 tables for its existence making it a weak entity.

Q5.

No Data Redundancy