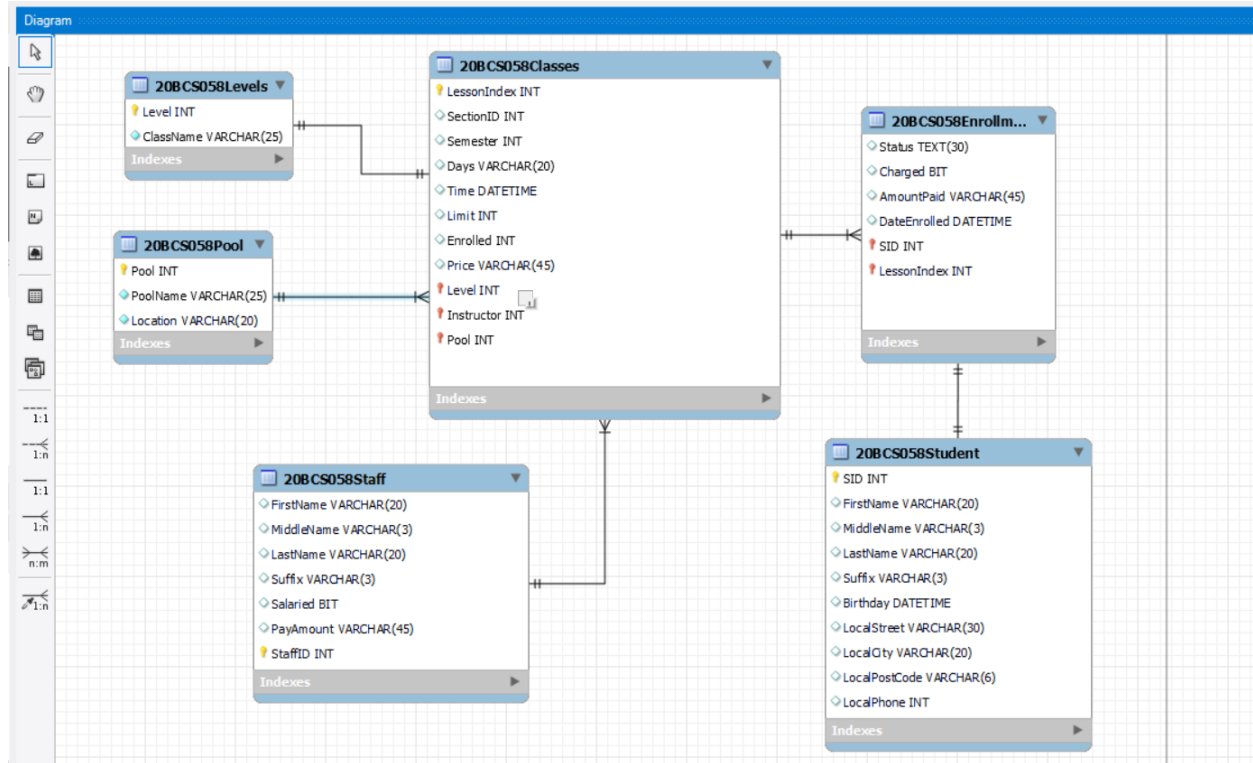20BCS058

Hemant Dhawale

Q.1)

Description:

- Each level must have one class.

- Multiple classes can have the same pool.

- Each staff member can handle multiple classes.

- Each class can have multiple enrollment.

- One student must have only one enrollment.

Q.2) Degree(20BCS058Levels)=2
Degree(20BCS058Pools)=3
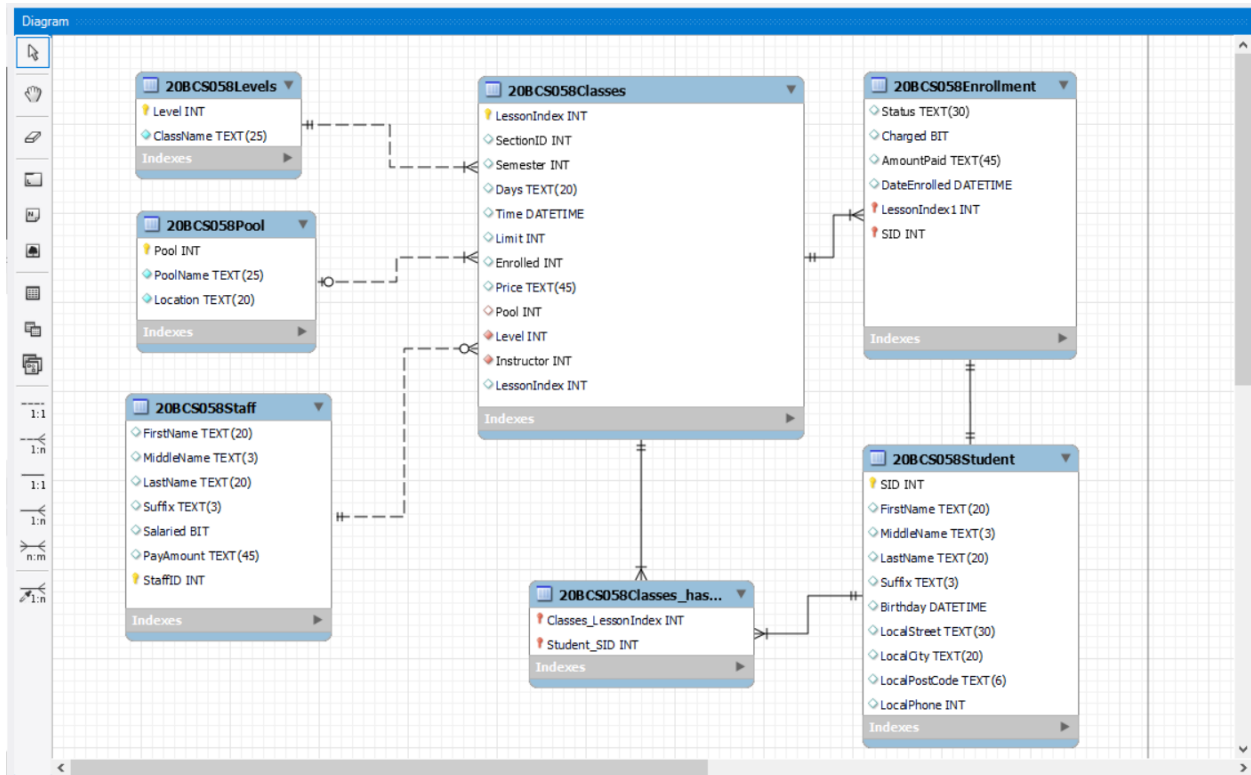
Degree(20BCS058Staff)=7
Degree(20BCS058Enrollment)=6
Degree(20BCS058Classes)=11
Degree(20BCS058Students)=10

Cardinality:

20BCS058Levels	[one to one]	20BCS058Classes
20BCS058Pools	[one to many]	20BCS058Classes
20BCS058Staff	[one to many]	20BCS058Classes
20BCS058Enrollment	[many to one]	20BCS058Classes
20BCS058Enrollment	[one to one]	20BCS058Students

## Q.3)

Description:

- A pool may or may not ever have a class.

- The levels table must always be associated with at least one class.

- The staff table may not ever have taught a class.

- The class must have students enrolled in it.

- The class must have a valid pool.

- The class may not have an instructor assigned.

- The class must have always be associated with an existing level.

Q.4) Weak entity: **20BCS058Enrollment** is the weak entity as it depends on **20BCS058Classes and 20BCS058Student** . It can be converted to a strong entity by adding a primary key. There should be a primary key with the name "**Enrollment_ID**"so that it can be converted into strong entity.
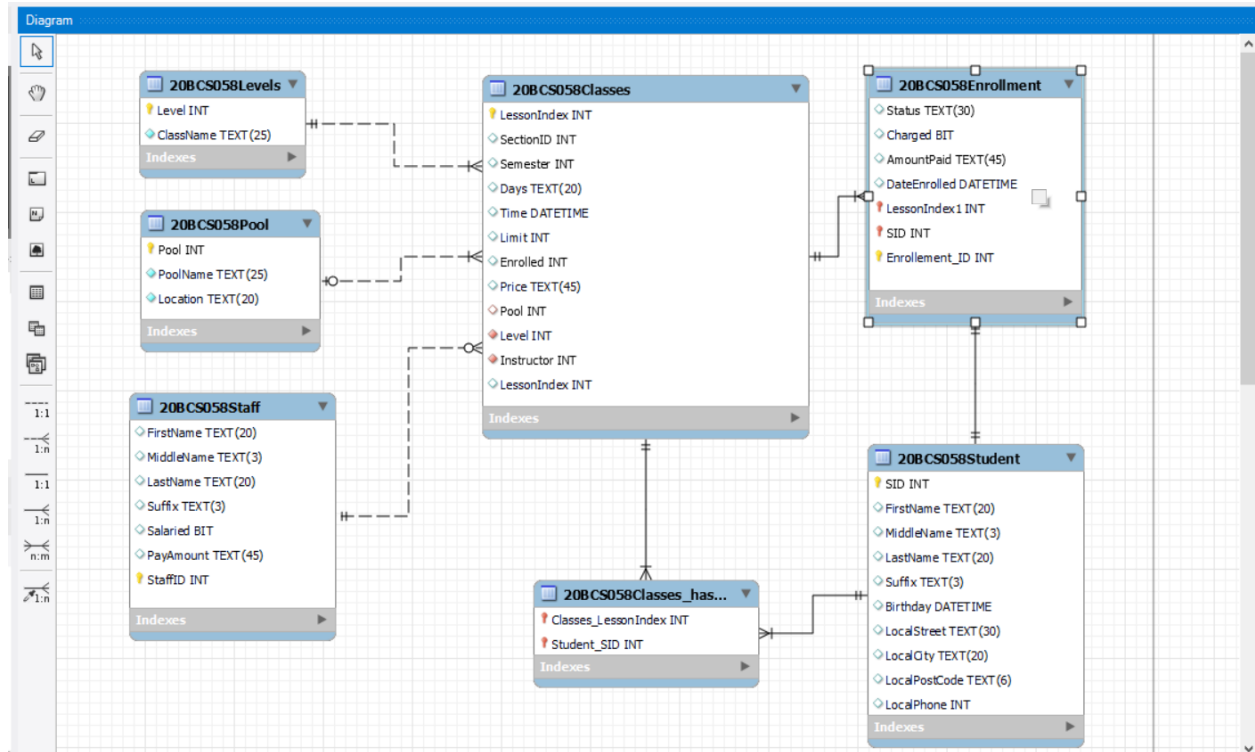
Q.5)There is no redundancy in DataBases.