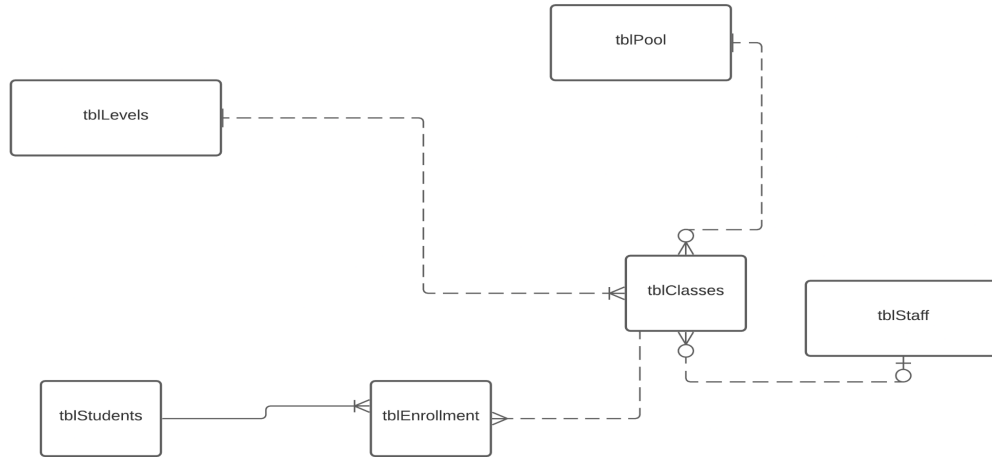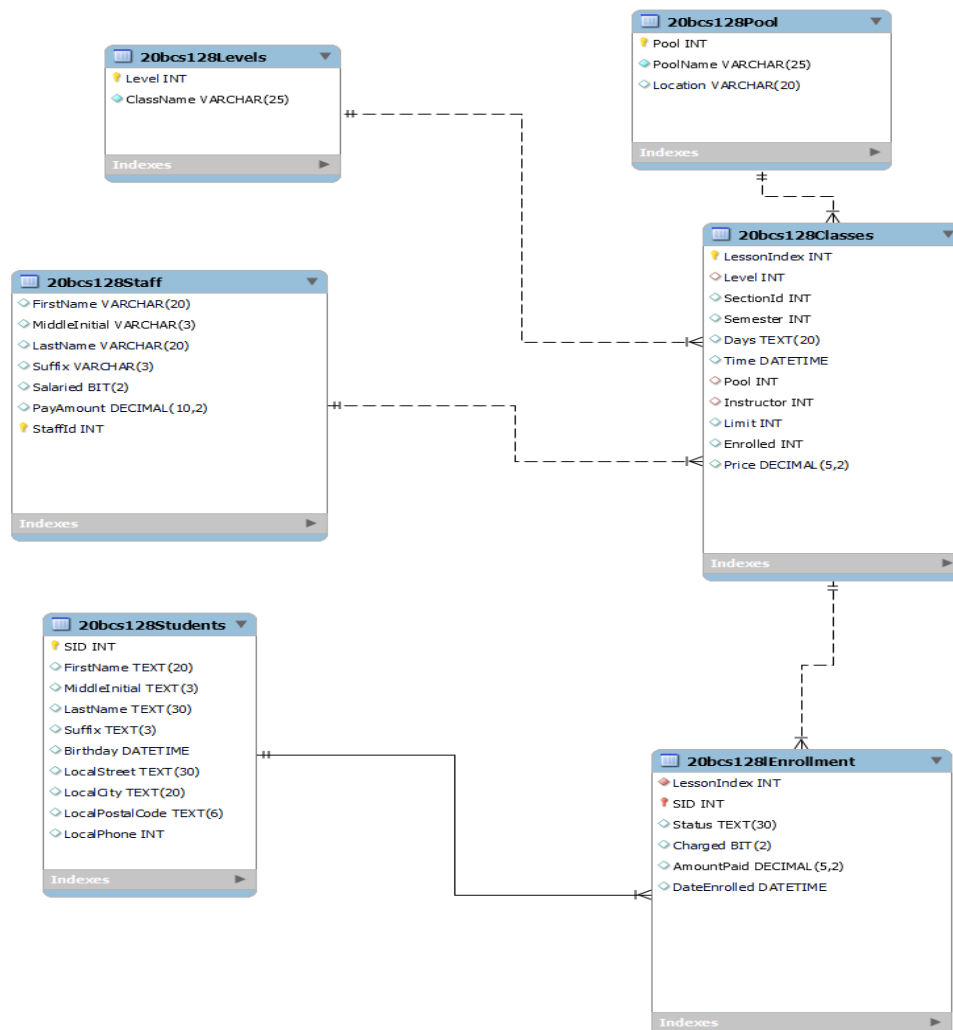# REPORT

ERD-Diagram

Conceptual:

Physical:

Primary key : 💡

Foreign key : 🔶

Foreign Key + primary Key : 📍

Degree and Cardinality

tblLevels has one degree and one-to-many relationship with Classes Table.

tblPool has one degree and one-to-many relationship with Classes Table.

tblStaff has one degree and one-to-many relationship with Classes Table.

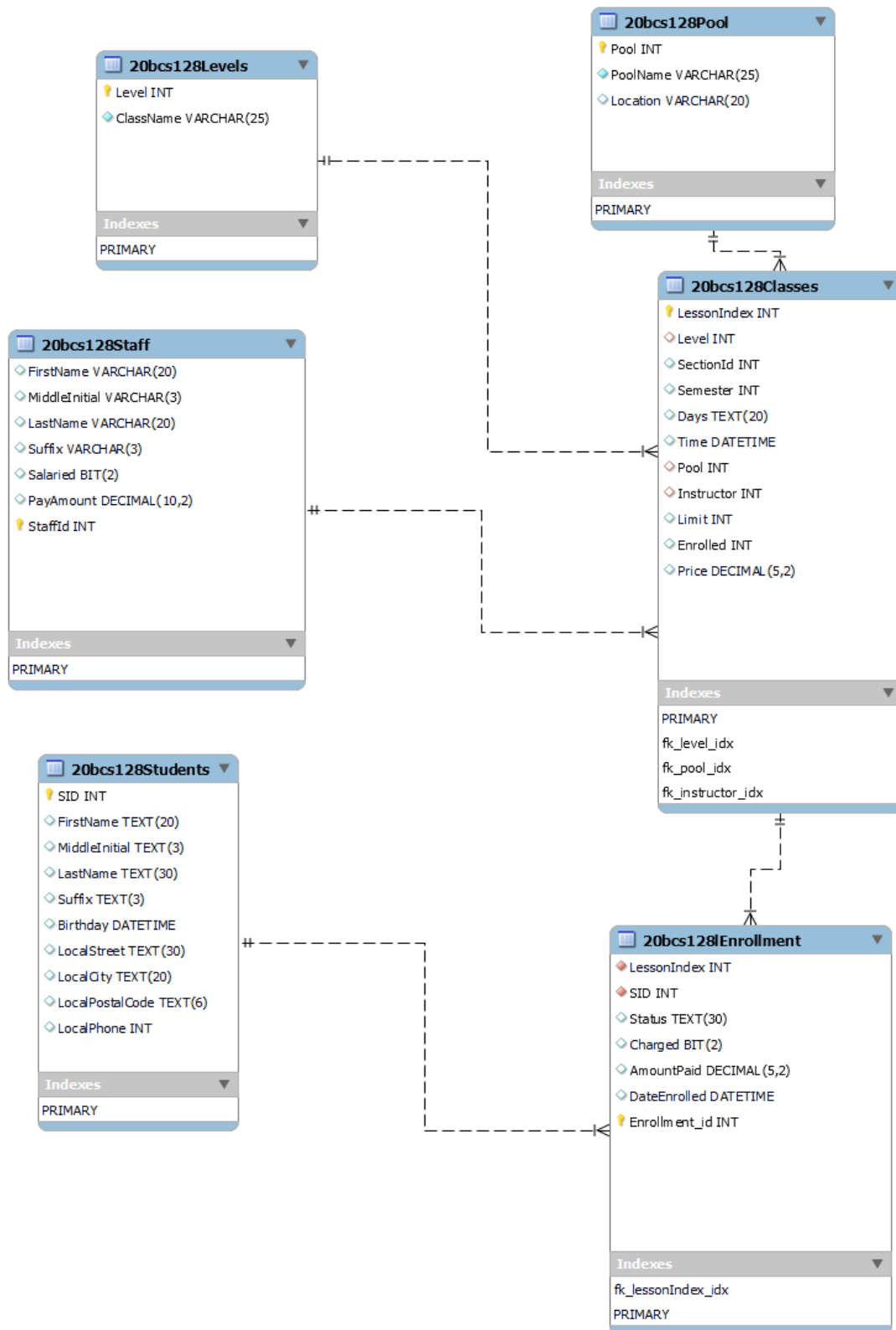tblStudents one degree and one-to-many relationship with Enrollment Classes.

tblClasses have 4 degrees.

tblEnrollment has 2 degree

Weak Entity:

Enrollment is Weak entity. To convert into a strong entity we need to add a new primary key independent from attributes of another entity.

Converting Weak Entity to Strong Entity:

20bcs128Levels

🔑 Level INT
🔷 ClassName VARCHAR(25)

Indexes
PRIMARY

20bcs128Pool

🔑 Pool INT
🔷 PoolName VARCHAR(25)
🔷 Location VARCHAR(20)

Indexes
PRIMARY

20bcs128Staff

🔷 FirstName VARCHAR(20)
🔷 MiddleInitial VARCHAR(3)
🔷 LastName VARCHAR(20)
🔷 Suffix VARCHAR(3)
🔷 Salaried BIT(2)
🔷 PayAmount DECIMAL(10,2)
🔑 StaffId INT

Indexes
PRIMARY

20bcs128Classes

🔑 LessonIndex INT
🔷 Level INT
🔷 SectionId INT
🔷 Semester INT
🔷 Days TEXT(20)
🔷 Time DATETIME
🔷 Pool INT
🔷 Instructor INT
🔷 Limit INT
🔷 Enrolled INT
🔷 Price DECIMAL(5,2)

Indexes
PRIMARY
fk_level_idx
fk_pool_idx
fk_instructor_idx

20bcs128Students

🔑 SID INT
🔷 FirstName TEXT(20)
🔷 MiddleInitial TEXT(3)
🔷 LastName TEXT(30)
🔷 Suffix TEXT(3)
🔷 Birthday DATETIME
🔷 LocalStreet TEXT(30)
🔷 LocalCity TEXT(20)
🔷 LocalPostalCode TEXT(6)
🔷 LocalPhone INT

Indexes
PRIMARY

20bcs128lEnrollment

🔴 LessonIndex INT
🔴 SID INT
🔷 Status TEXT(30)
🔷 Charged BIT(2)
🔷 AmountPaid DECIMAL(5,2)
🔷 DateEnrolled DATETIME
🔑 Enrollment_id INT

Indexes
fk_lessonIndex_idx
PRIMARY

Data Redundancy:

There is no data redundancy in my table.