

Class Hackathon of DBMS

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SCHEMA OF RELATIONS

```
CREATE TABLE 20bcs110Levels(  
Level INTEGER PRIMARY KEY,  
ClassName TEXT(25) NOT NULL);
```

```
CREATE TABLE 20bcs110Pool(  
Pool INTEGER PRIMARY KEY,  
ClassName TEXT(25) NOT NULL,  
Location TEXT(20));
```

```
CREATE TABLE 20bcs110Staff(  
StaffID INTEGER PRIMARY KEY,  
FirstName TEXT(20),  
MiddleInitial TEXT(3),  
LastName TEXT(20),  
Suffix TEXT(3),  
Salaried BIT,  
PayAmount INTEGER);
```

```
CREATE TABLE 20bcs110Students(  
SID INTEGER PRIMARY KEY,  
FirstName TEXT(20),  
MiddleInitial TEXT(3),  
LastName TEXT(30),  
Suffix TEXT(3),  
Birthday DATETIME,  
LocalStreet TEXT(30),  
LocatCity TEXT(20),
```

LocalPostalCode TEXT(6),

LocalPhone INT);

CREATE TABLE 20bcs110Classes(

LessonIndex INTEGER PRIMARY KEY,

Level INTEGER,

SectionID INTEGER,

Semester INT,

Days TEXT(20),

Time DATETIME,

Pool INTEGER,

Instructor INTEGER,

ClassLimit INT,

Enrolled INT,

Price INTEGER,

FOREIGN KEY (Level) REFERENCES 20bcs110Levels(Level),

FOREIGN KEY (Pool) REFERENCES 20bcs110Pool(Pool),

FOREIGN KEY (Instructor) REFERENCES 20bcs110Staff(StaffID));

CREATE TABLE 20bcs110Enrollment(

LessonIndex INTEGER,

SID INTEGER PRIMARY KEY,

Status TEXT(30),

Charged BIT,

AmountPaid INTEGER,

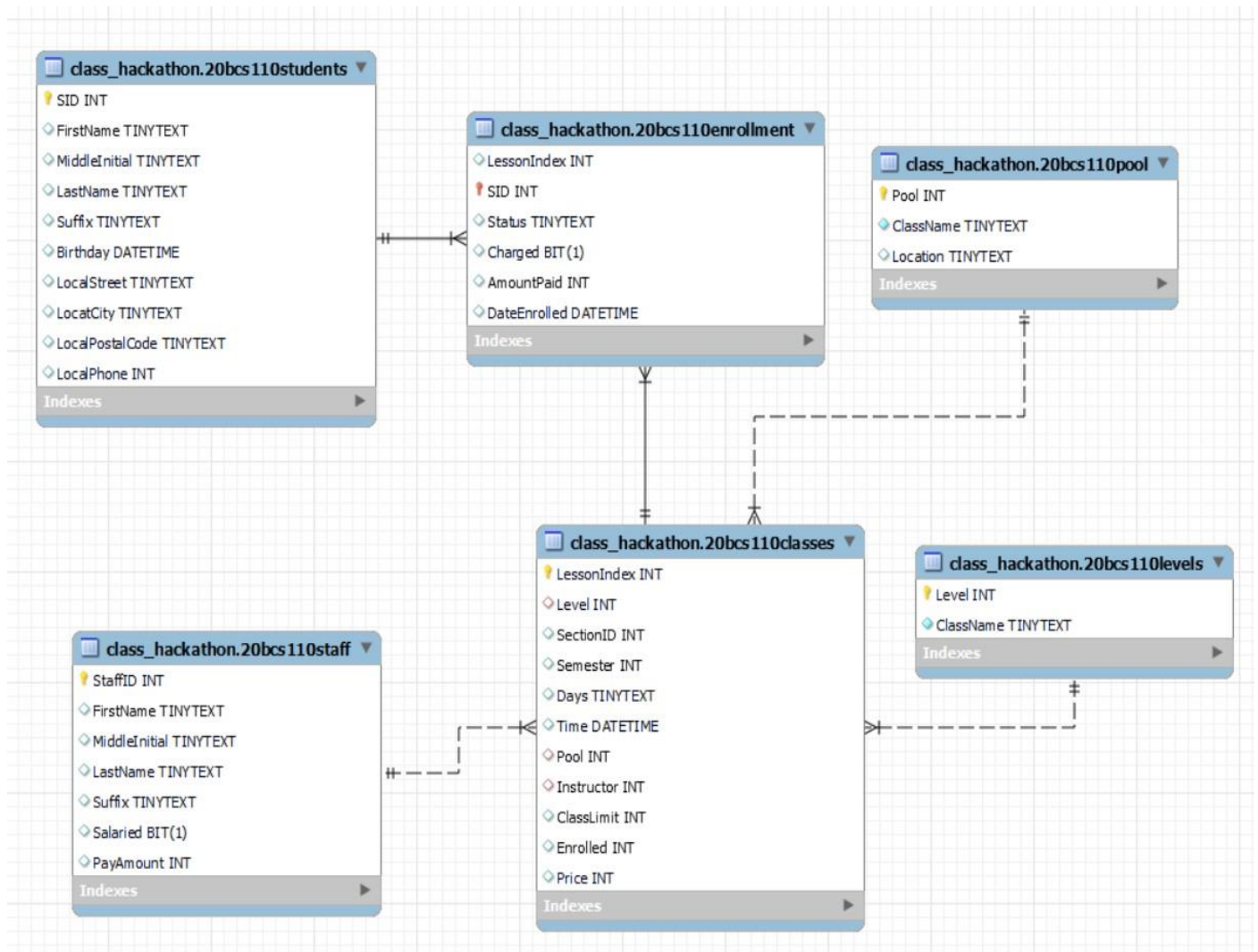
DateEnrolled DATETIME,

CONSTRAINT Enrollment_FK1 FOREIGN KEY (SID) REFERENCES
20bcs110Classes(LessonIndex),

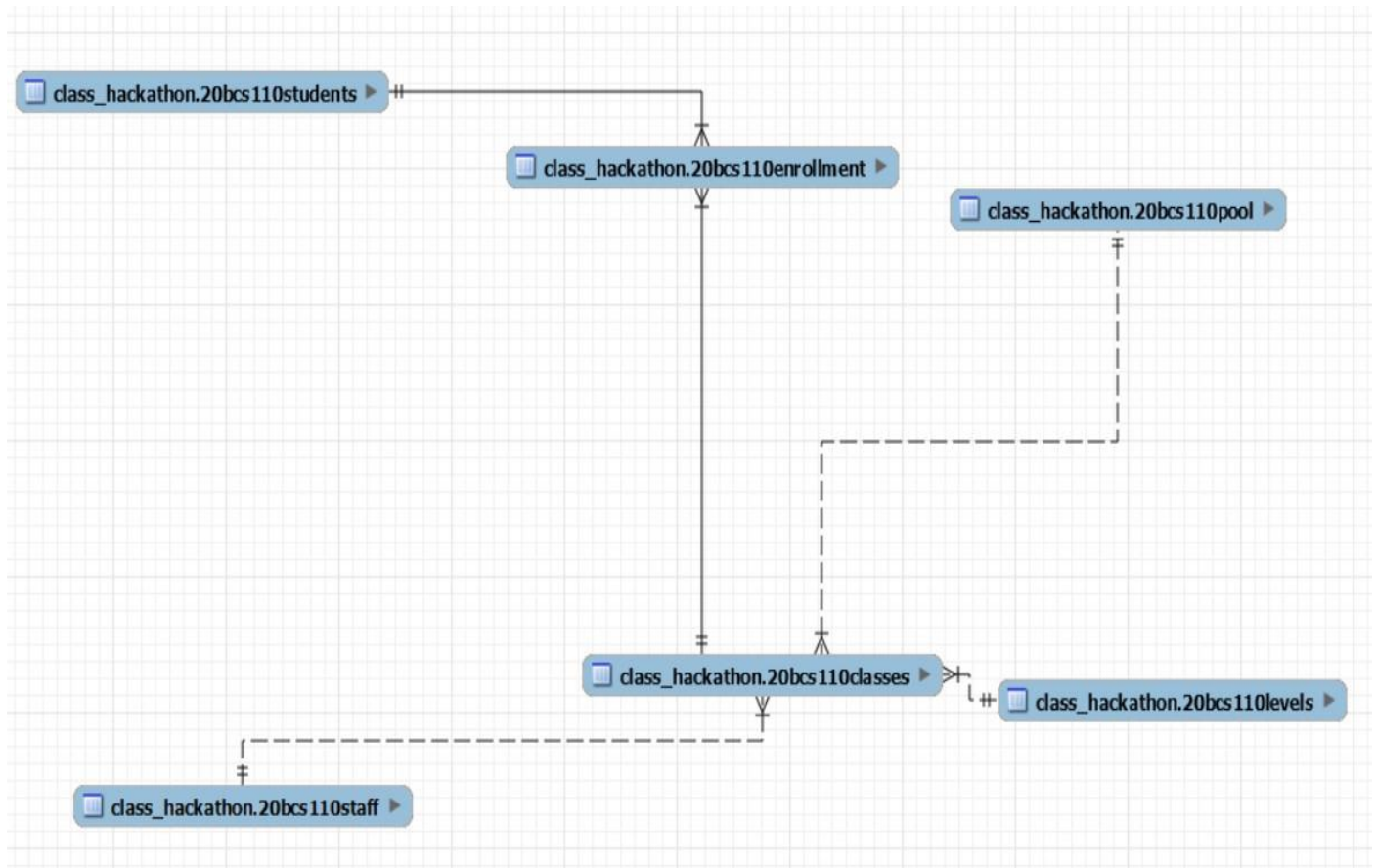
CONSTRAINT Enrollment_FK2 FOREIGN KEY (SID) REFERENCES 20bcs110Students(SID)

);

CONCEPTUAL DATA MODEL (ERD)



PHYSICAL DATA MODEL (ERD)



There is no Weak Entity in Physical Data Model.

DATA REDUNDANCY

1. Class Name is Stored twice, in Pool table and Levels Table.