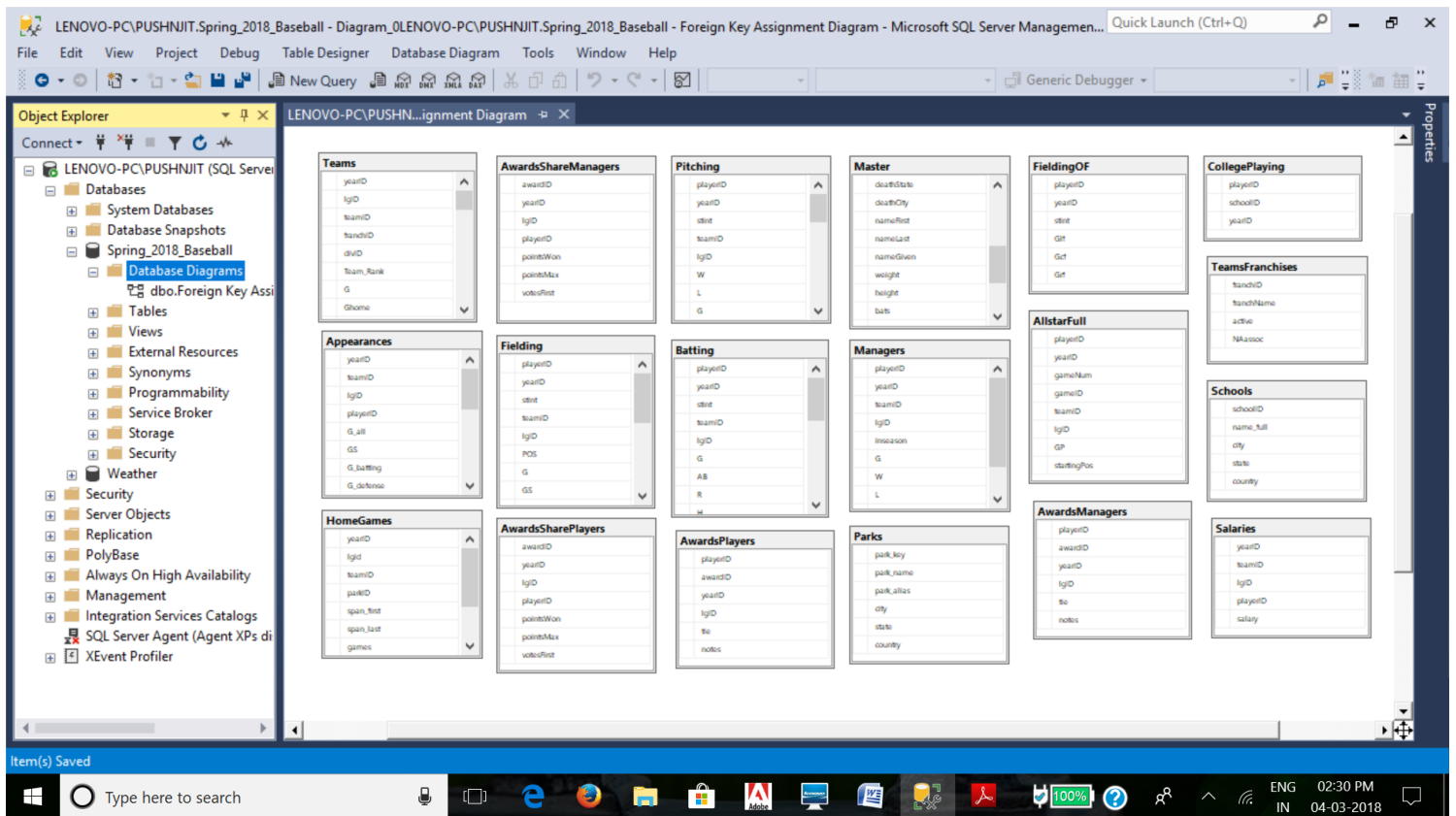
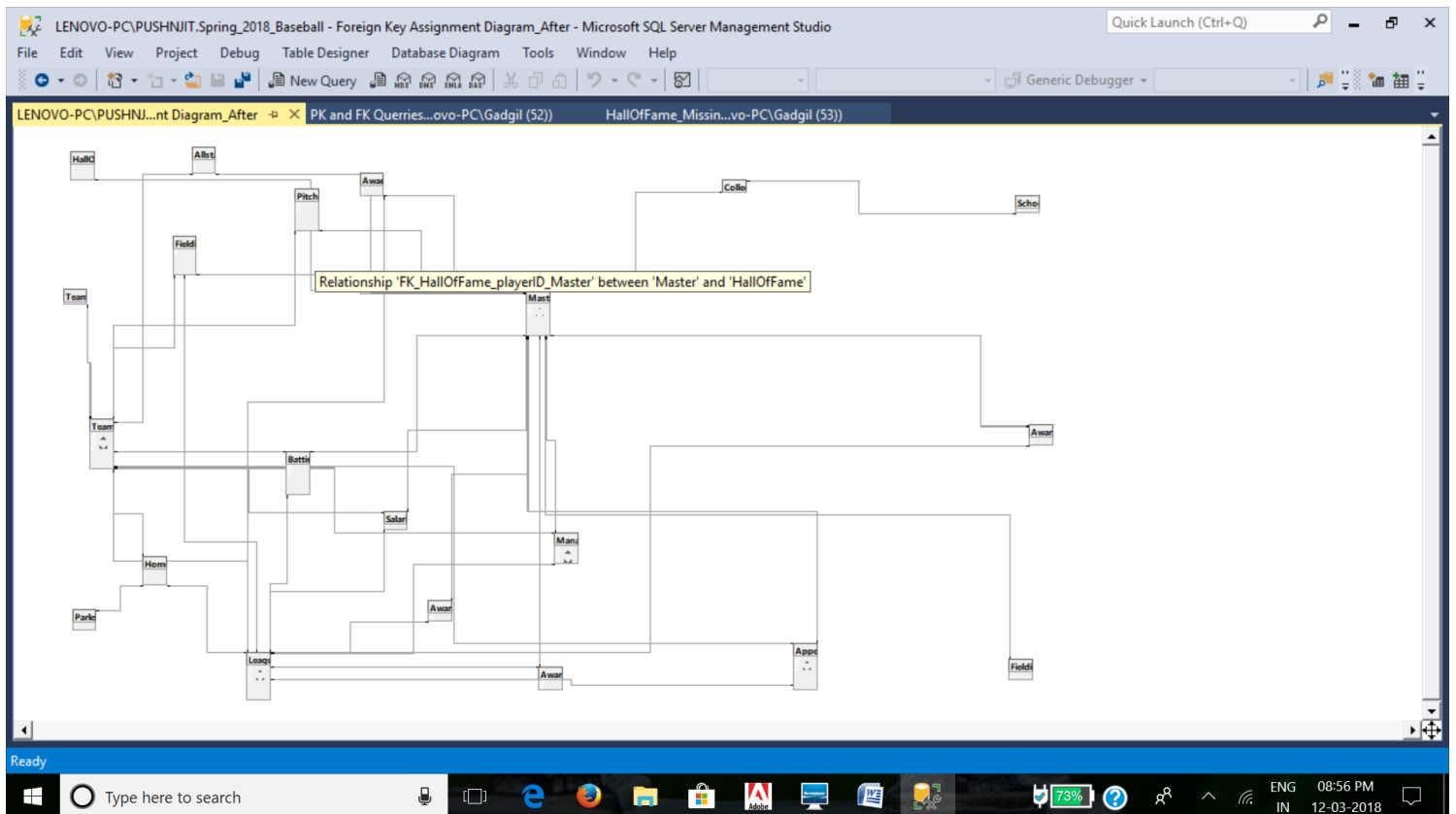


Foreign Key - Assignment 1

Database Diagram before implementing the queries



Database Diagram after implementing the queries



1. What issues did you find or encounter when creating the foreign keys?

Answer :

Got the following error messages -

The main problem faced was with consistency between values in CollegePlaying and Schools tables. There were four unique schoolID present in CollegePlaying table that were not present in Schools table.

1. Msg 547, Level 16, State 0, Line 77

The ALTER TABLE statement conflicted with the FOREIGN KEY constraint "FK_CollegePI_schoo_7EC1CEDB". The conflict occurred in database "Spring_2018_Baseball", table "dbo.Schools", column 'schoolID'.

Similarly there were 8 unique playerID present in Salaries table that were not present in Master table.

2. Msg 547, Level 16, State 0, Line 142

The ALTER TABLE statement conflicted with the FOREIGN KEY constraint "FK_Salaries_player_178D7CA5". The conflict occurred in database "Spring_2018_Baseball", table "dbo.Master", column 'playerID'.

Encountered error while trying to code lgID as Foreign Keys referencing AwardsShareManagers table.

3. Msg 1767, Level 16, State 0, Line 249

Foreign key 'FK_AwardsShareManagers_leagueID_League' references invalid table 'League'.

Msg 1750, Level 16, State 1, Line 249

Could not create constraint or index. See previous errors.

2. What did you do to resolve them?

Answer :

For the 1st error to be solved, inserted the uncommon records into the School table and we again fire the query. It now runs successfully. The details of the same are provided in the PK and FK Querries.sql file attached with this document.

For the 2nd error to be solved, inserted the uncommon records into the Salaries table and we again fire the query. It now runs successfully. The details of the same are provided in the PK and FK Querries.sql file attached with this document.

For the 3rd error to be solved, created a separate League table with lgID as the Primary Key.

3. How did you create the table to the LGID foreign key in the Teams table (submit any SQL in your .sql file)?

Answer :

The details of the same are provided in the PK and FK Querries.sql file attached with this document.

4. Is there anything different you had to do when loading the data into the database after the foreign keys were created

Answer :

Yes, tables and columns that were referenced by foreign keys needed to be updated first, otherwise there were errors to update table with Foreign Key. We could not upload in the order provided previously. Tables being referenced like Master, Schools, Parks, etc. had to be uploaded first.

5. What is the benefit of creating these relationships?

Answer :

The major benefit of having these relationships are to reduce anomalies as much as possible. By establishing these relationships we can get rid of UPDATE, INSERT and DELETE anomalies. While using these DMLs the system always validates data before performing the task.

6. Was there any difference in the time it takes to load the data into the database comparing them before and after adding the foreign keys

Answer :

Yes, there were some time differences. The tables with Foreign Keys took some time to load the information to execute than when the information was stacked before the foreign key was made. This is because the constraints which are added which prompt for data validation before the upload.

7. Did you get any error when you reloaded the data that did not occur when you originally loaded the tables

Answer :

Yes, tables and columns that were referenced by foreign keys needed to be updated first, otherwise there were errors to update table with Foreign Key giving the errors.