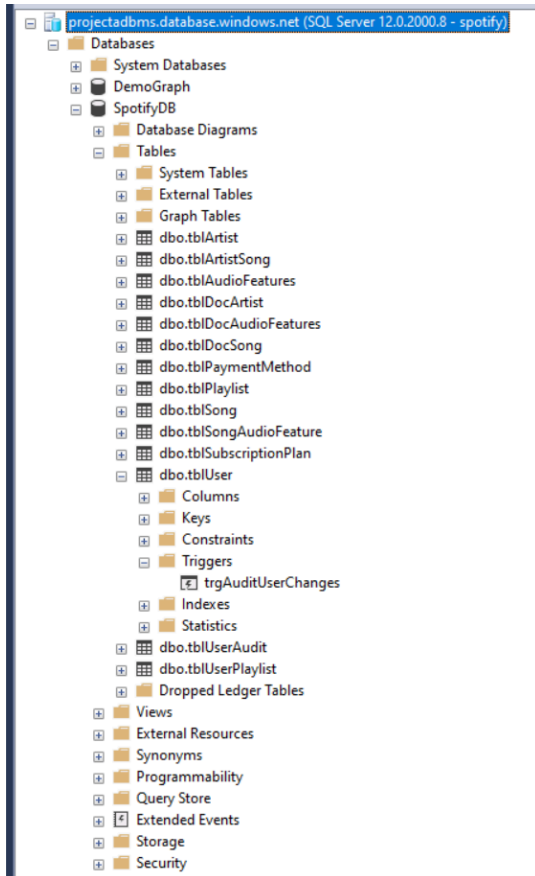


P4: Work With Database Data

RELATIONAL

Trigger -

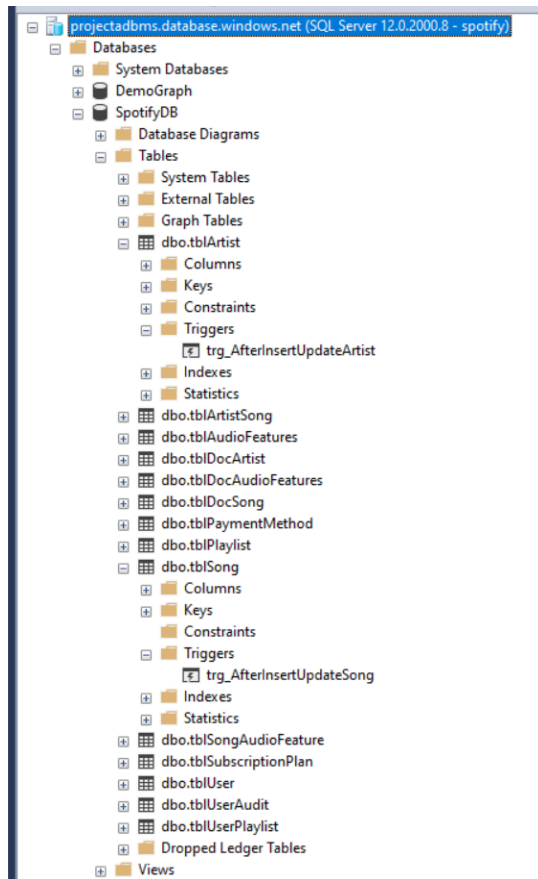
1. The **trgUpdateLastUpdated** trigger updates the LastUpdated column in the tblUser table to the current date and time whenever a record is modified.
2. The **trgAuditUserChanges** trigger logs old and new values of updated fields in the tblUser table into the tblUserAudit table for auditing purposes.



DOCUMENT

Trigger -

1. **trg_AfterInsertUpdateSong**- for After Insert/Update on Song to Maintain SongAudioFeature Relationship
2. **trg_AfterInsertUpdateArtist** -for After Insert/Update on Artist to Maintain ArtistSong Relationship

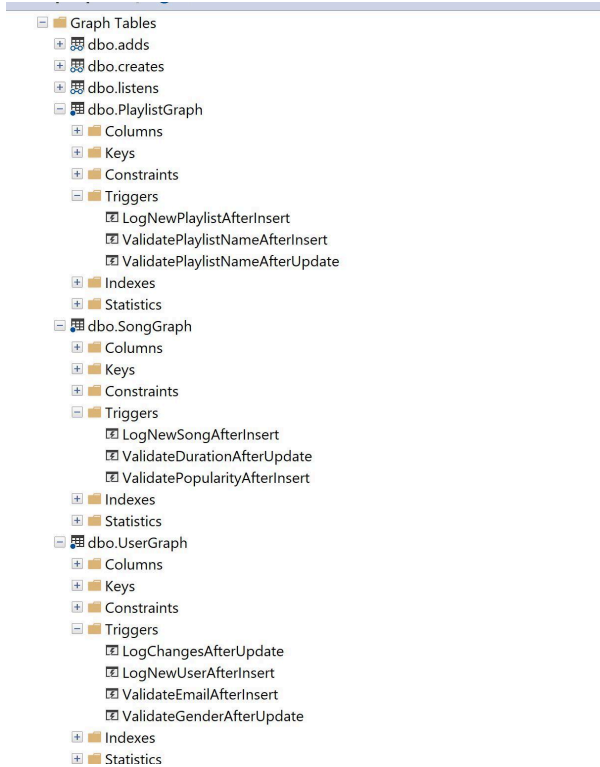


GRAPH

Trigger -

1. **ValidateEmailAfterInsert:** Ensures inserted email addresses in UserGraph are correctly formatted, rolling back the transaction if invalid.
2. **LogNewUserAfterInsert:** Logs the insertion of new users into UserLogs with a timestamp whenever a new row is added to UserGraph.
3. **ValidateGenderAfterUpdate:** Ensures updated gender values in UserGraph are valid, rolling back the transaction if they are not.
4. **LogChangesAfterUpdate:** Logs updates to UserGraph into UserLogs with a timestamp.
5. **ValidatePopularityAfterInsert:** Ensures inserted Popularity values in SongGraph are between 0 and 100, rolling back the transaction if not.
6. **LogNewSongAfterInsert:** Logs the insertion of new songs into SongLogs with a timestamp whenever a new row is added to SongGraph.
7. **ValidateDurationAfterUpdate:** Ensures updated Duration_ms values in SongGraph are positive, rolling back the transaction if not.
8. **ValidatePlaylistNameAfterInsert:** Ensures inserted PlaylistName values in PlaylistGraph are not empty, rolling back the transaction if they are.

9. **LogNewPlaylistAfterInsert:** Logs the insertion of new playlists into PlaylistLogs with a timestamp whenever a new row is added to PlaylistGraph.
10. **ValidatePlaylistNameAfterUpdate:** Ensures updated PlaylistName values in PlaylistGraph are not empty, rolling back the transaction if they are.



All Stored Procedures:

Stored procedures were created to insert, update and delete rows into various tables. This helps the data fresh and it's an ongoing implementation process.

