# Implementation

**Indexing:**

Indices created and reason:

1. ‘photographer’ has been chosen as an index in the ‘photo’ table because one photographer may have taken multiple photos that may have been included in the database.
2. ‘photoTD’ has been chosen as the index in then table ‘photo\_descr’ because the description will contain keyword/phrases for the corresponding photoID.

All indices were created after tables were created.

The ALTER command was used to add indices.

1. ALTER TABLE photo ADD INDEX(photographer);
2. ALTER TABLE photo\_descr ADD INDEX(photoID);

No indices were added to table ‘user’ and ‘user\_role’ because indexing affects only the SELECT command by speeding it up and hence there was no requirement for creating indices on ‘user’ and ‘user\_role’ given that their content will sparingly be looked at by the admins.