

## Database Design in 3NF

files(id, genre\_id, user\_id, location\_id, language\_id, lyrics\_id, composer\_id,  
theme\_id, copyright\_id, file\_type\_id, name, size, song\_name, file\_length,  
description, publisher, itunes\_link, amazon\_link, art\_form)

genres(id, name, description)

themes(id, name, description)

copyrights(id, name, terms)

file\_types(id, name)

languages(id, name)

composers(id, name)

projects(id, user\_id, name, approved)

users(id, user\_type\_id, first\_name, last\_name, email, password, salt)

user\_types(id, name)

### Underlines:

Solid underlined fields are primary keys;

Dotted underlined fields are foreign keys;

Double underlined fields are composite keys that are both primary and foreign keys.

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### Database Design Notes:

1. Files is a table that handles all possible data inputs for the potential files that users could be inputting into the system (pictures, music, lyrics, etc). While this violates 3NF, it was set like this for the purpose of the hack4missions iteration for this. This is probably the first place that can be normalized.
2. UserType denotes what privileges a user may have depending on what kind of user they are (admin, forum member, etc)
3. "salt" is a bcrypted string of the user's password for security.