

User
 PK user-id
 first-name
 last-name
 password
 created-at

User Group
 PK, FK user-id
 PK, FK group-id

Group
group-id PK
 group-name
 created-at

permission
permission-id PK
 description

File in Directory
 PK, FK user-id
 PK, FK parent-directory-id
 PK, FK child-file-id
 child-file-name
permission-id FK

Directory
directory-id PK
 path

Directory in Directory
 PK, FK user-id
 PK, FK parent-directory-id
 PK, FK child-directory-id
 child-directory-name
permission-id FK

File
file-id PK
 path