

Theme: Music application

Project requirements:

- Registration
- Authorization
- View list of the songs
- View list of the albums
- View all of these according to selected genre
- \*Logging

Roles:

1. User
  - I. CRUD Playlists
  - II. Subscribe/change subscription/unsubscribe
2. Artist
  - I. CRUD Tracks
  - II. CRUD Albums
  - III. CRUD Playlist
3. Admin
  - I. CRUD Playlists, CRUD Subscriptions, CRUD Tracks, CRUD Albums, CRUD Users, CRUD Label

### Tables

Roles:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	smallserial	PK
<b>Role</b>	varchar(100)	NOT NULL UNIQUE

AbstractUser:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>Login</b>	varchar(100)	NOT NULL UNIQUE
<b>Email</b>	varchar(256)	NOT NULL UNIQUE
<b>Password</b>	varchar(256)	NOT NULL
<b>RoleID</b>	(smallserial)	FK

Artist:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>AbstractUserID</b>	(bigserial)	FK
<b>Country</b>	(smallserial)	FK
<b>Website</b>	varchar(256)	NOT NULL UNIQUE

User:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK

<b>AbstractUserID</b>	(bigserial)	FK
<b>Subscription</b>	(smallserial)	FK

Label:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>Name</b>	varchar(150)	NOT NULL UNIQUE
<b>Budget</b>	money	NOT NULL >=0

Album:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>Name</b>	varchar(150)	NOT NULL
<b>Release date</b>	date	NOT NULL

Track:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>Name</b>	varchar(150)	NOT NULL
<b>Timing</b>	time	NOT NULL
<b>Likes</b>	bigint	NOT NULL >=0
<b>Streaming</b>	bigint	NOT NULL >=0
<b>StoragePath</b>	varchar(150)	NOT NULL UNIQUE

Genre:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	smallserial	PK
<b>Name</b>	varchar(150)	NOT NULL UNIQUE

Playlist:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>Name</b>	varchar(150)	NOT NULL UNIQUE
<b>Tracks</b>	ARRAY	
<b>Genre</b>	ARRAY	

Subscription:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>Title</b>	varchar(150)	NOT NULL UNIQUE
<b>Cost</b>	money	NOT NULL >=0

Logging:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	bigserial	PK
<b>AbstractUserID</b>	(bigserial)	FK
<b>Message</b>	varchar(500)	NOT NULL

Instruments:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	smallserial	PK
<b>Title</b>	varchar(50)	NOT NULL

Country:

Name:	Type:	Restrictions(PK, FK)
<b>Id</b>	smallserial	PK
<b>Title</b>	varchar(56)	NOT NULL