

Description:

In this project, we will have 6 SQL databases:

- 3 will be used mainly to store and retreat information
- 3 will be used as backup for the others.

1. User database:

We chose SQL database because of its relational ability. Data will be stored in 2 different tables. First table is User Information such as: User ID (as Primary key), email, phone, Username... and so on. This database will also contain a Foreign key of Playlist ID, which is used to access the playlists created by the users and generated by the AI. For security reasons, this database will be encrypted. This makes the chance of losing important information lower. The tradeoff for this type of database is higher processing cost than noSQL database.

2. Song database.

This can be used noSQL or SQL because it only stored basic information for songs that are collected from the Spotify database such as: song ID (Primary key), song name, song duration, artist... and so on. However we prefer to use SQL because it can pre-define a schema and sort songs in tables. This helps easier to manage and pull out information. Moreover, we can control the input information, choose what we want to store and arrange them in order for future use. NoSQL databases will have a less expensive price, however the trade off is unarranged data which takes more time to find and pull out information that is needed.

3. Playlist database.

We chose SQL database for this information because it directly connects with users. Playlist ID is the primary key for this database and is also the foreign key for user ID. This database stored all the customization of the user playlist. The SQL helps arrange data into tables for faster loading speed and easier access. noSQL is an option but without the relational ability it would be difficult to retreat necessary information. The trade off is higher cost.

The 3 remaining databases are backup for these 3 main.

