

Music Streaming Service

Group Number-E

Topic-Music Streaming Service

Course-Rapid Application Development

Course code-CST-243-3

Department-Department of Computer Science and Informatics

Faculty-Faculty of Applied Sciences

Core requirements

When considering the core requirements for a music streaming service, the following requirements should be taken into account:

1. User Registration and Login:

- User registration functionality to allow new users to create accounts.
- User login functionality for existing users to access their accounts.
- Secure authentication mechanisms, such as password hashing and encryption, to protect user accounts.

2. Music Library and Playlists:

- A comprehensive music library that includes a wide range of songs, albums, and artists.
- The ability for users to create, manage, and customize their own playlists.
- Features for adding songs to playlists, removing songs, and rearranging the order of songs within a playlist.
- Support for creating public or private playlists, depending on user preferences.

3. Logout Functionality:

- A logout feature that allows users to securely log out of their accounts.
- Clearing session data and ensuring proper user authentication after logout.

- Providing an option to remember user login credentials for convenience, if desired.

4. Search Functionality:

- A robust search feature that enables users to search for specific songs, albums, artists, or genres.
- Support for filters and sorting options to enhance search results based on user preferences.
- Quick and efficient search algorithms to provide fast results, even with large music libraries.

secondary requirements

In addition to the core requirements mentioned earlier, here are some secondary requirements to consider for a music streaming service:

1. Reviews and Ratings:

- Allow users to rate and review songs, albums, and playlists to provide feedback and recommendations to other users.
- Display average ratings and reviews to help users discover popular and high-quality music.
- Implement a moderation system to ensure the authenticity and integrity of reviews and ratings.

2. Customer Support:

- Provide customer support channels, such as email, live chat, or a dedicated support forum, to assist users with any issues or inquiries.
- Include a comprehensive FAQ section or knowledge base to address common user questions and concerns.
- Ensure timely and effective responses from the customer support team to maintain user satisfaction.

3. Compatibility on Any Devices:

- Develop and maintain a responsive web application that adapts to different screen sizes and resolutions, ensuring optimal user experience on desktops, laptops, tablets, and mobile devices.
- Develop native mobile applications for popular platforms like iOS and Android, offering a seamless and consistent experience across devices.
- Compatibility with smart TVs, streaming media devices, and other connected devices to expand the reach of the service.

4. Personalization:

- Implement personalized recommendations based on user preferences, listening history, and behavior patterns.
- Offer customizable user interfaces, allowing users to choose their preferred themes, layouts, and display options.
- Provide options for creating custom radio stations based on genres, artists, or moods.

5. Advertisements and Offers:

- Integrate targeted advertisements to generate revenue, but ensure they are non-intrusive and do not significantly disrupt the user experience.
- Offer premium subscription plans to remove ads and provide additional features and benefits for subscribers.
- Provide promotional offers and discounts for subscription plans or merchandise to incentivize user loyalty and engagement.

In addition to the core and secondary requirements mentioned earlier, here are some additional secondary requirements for a music streaming service:

6. Availability:

- Ensure high availability of the service, minimizing downtime and disruptions for users.
- Implement redundancy and fault-tolerant systems to handle increased traffic and maintain service availability during peak usage periods.

7. Reliability:

- Build a robust infrastructure that can handle a large number of concurrent users and streaming requests.

- Implement monitoring and alerting systems to proactively identify and address any performance or availability issues.
- Regularly perform backups and have disaster recovery plans in place to protect user data and ensure business continuity.

8. Fast Response Times:

- Optimize the performance of the service to provide quick response times for user actions such as searching, playing songs, and accessing playlists.
- Employ caching mechanisms and content delivery networks (CDNs) to reduce latency and improve response times for users across different geographical locations.

9. Secure Access to the Service:

- Use industry-standard encryption protocols (e.g., HTTPS) to secure communication between the user's device and the streaming service's servers.
- Regularly update and patch software and systems to address any security vulnerabilities and ensure the security of user data.

9. Privacy and Protection:

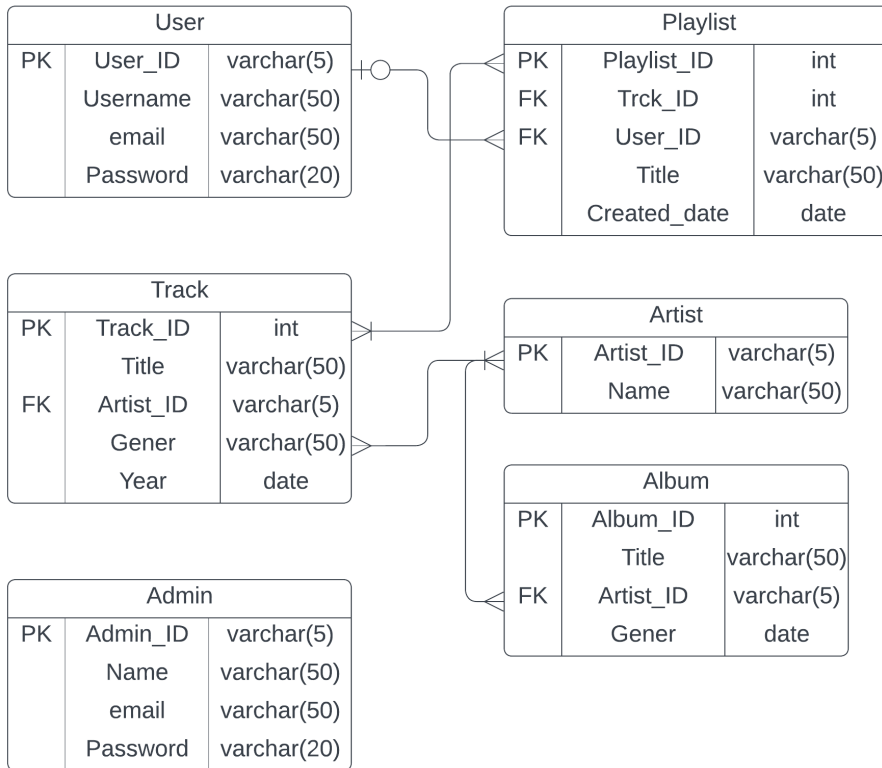
- Implement strict privacy policies and adhere to data protection regulations to safeguard user data and ensure user privacy.
- Obtain user consent for data collection and clearly communicate how user data will be used and protected.
- Provide users with options to control their privacy settings, including the ability to delete their account and personal information if desired.

These additional requirements focus on ensuring the service is reliable, responsive, secure, and respects user privacy. By addressing these aspects, the music streaming service can build trust with users and provide a positive user experience.

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Assumption

User can create playlists or not
A playlist must contain at-least one song
Artist may create an album or may not



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