

NexStream - VAT Streaming Platform

1. Problem Statement :-

The need for this platform arose from the growing demand for a convenient, all-in-one solution that allows people to easily access and enjoy audio, video, and text content from various sources on their devices, ensuring a smooth, secure, and user-friendly experience. It's about simplifying the way we access and interact with digital media in a world where content diversity and convenience are key.

2. Requirements/Features:-

- **Audio Streaming:** Allow users to stream audio content, including music, podcasts, and audio books.
- **Video Streaming:** Provide video streaming capabilities for movies, TV shows, and other video content.
- **Text Access:** Enable users to access and view text content, such as documents, articles, and e-books.
- **Support Various Formats:** Ensure compatibility with common audio, video, and text formats (e.g., MP3, MP4, PDF).

3. Tech Stack Used:-

Language :- Java

Framework :- Spring Boot, Hibernate

Database :- Oracle/MySQL

4. APIs to be developed :-

GET API:

Get Api to present to the client with which will take the name of the file and the type of media format the client requested, based on which we do the db query and present it to the UI.

Code outline :

```
@path("/stream")  
Class Streaming{  
    @GET  
    @Path("/{name}/{formatType}")  
    Response stream(@PathParam() String name,  
        @PathParam("formatType") String formatType){  
    }  
}
```

5. Modules:-

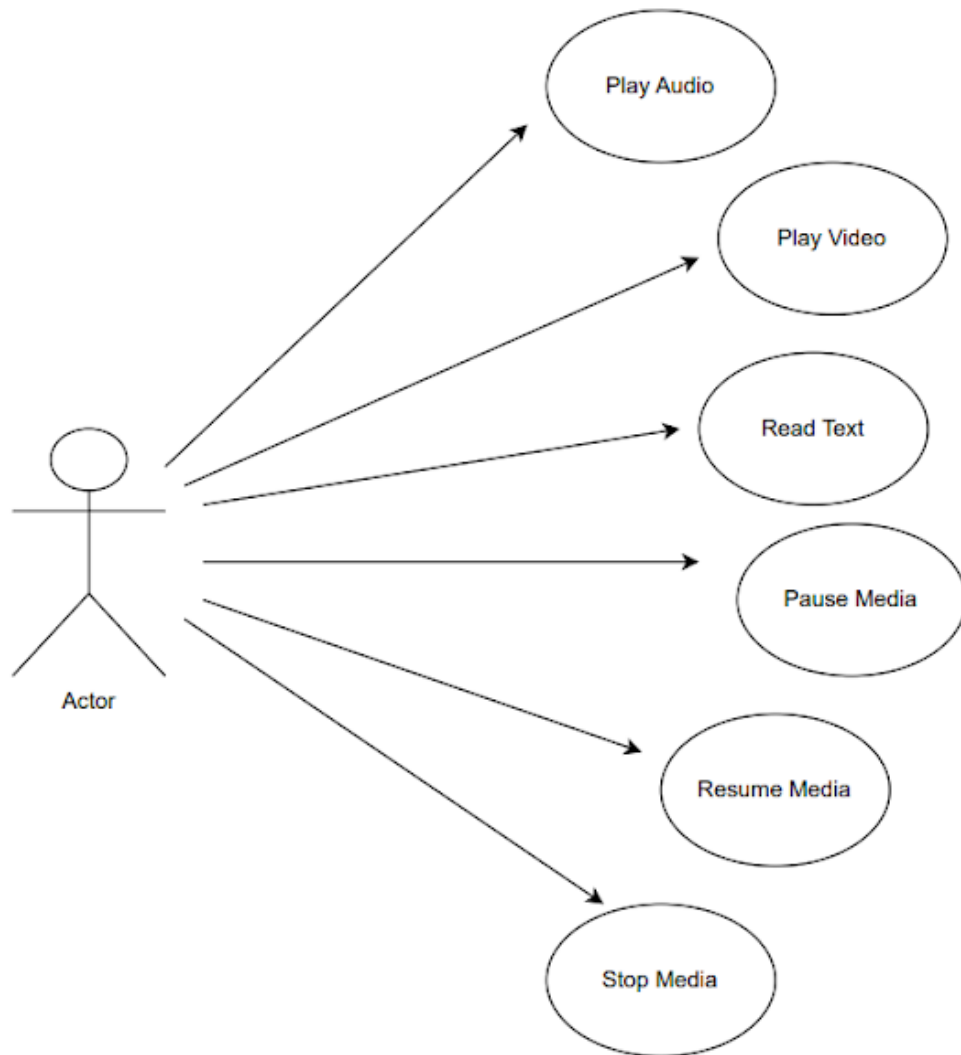
Dao : Module to connect to the database and perform database actions.

Service : To perform Business logics

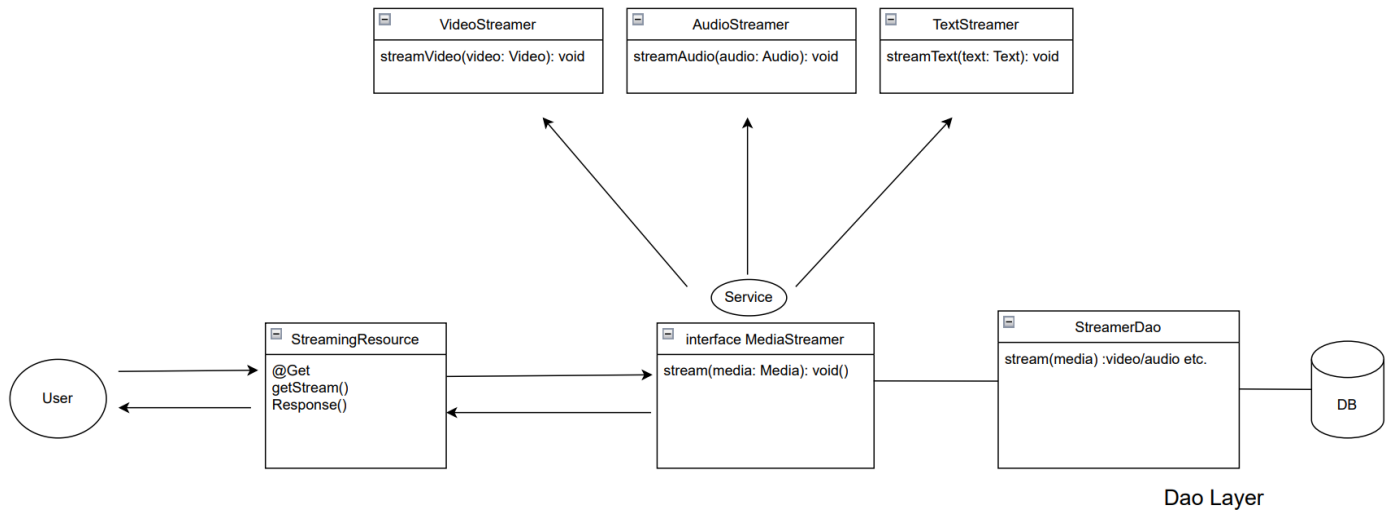
Resource: To interact with the client

Entity : Java Class which will be mapped to DB table.

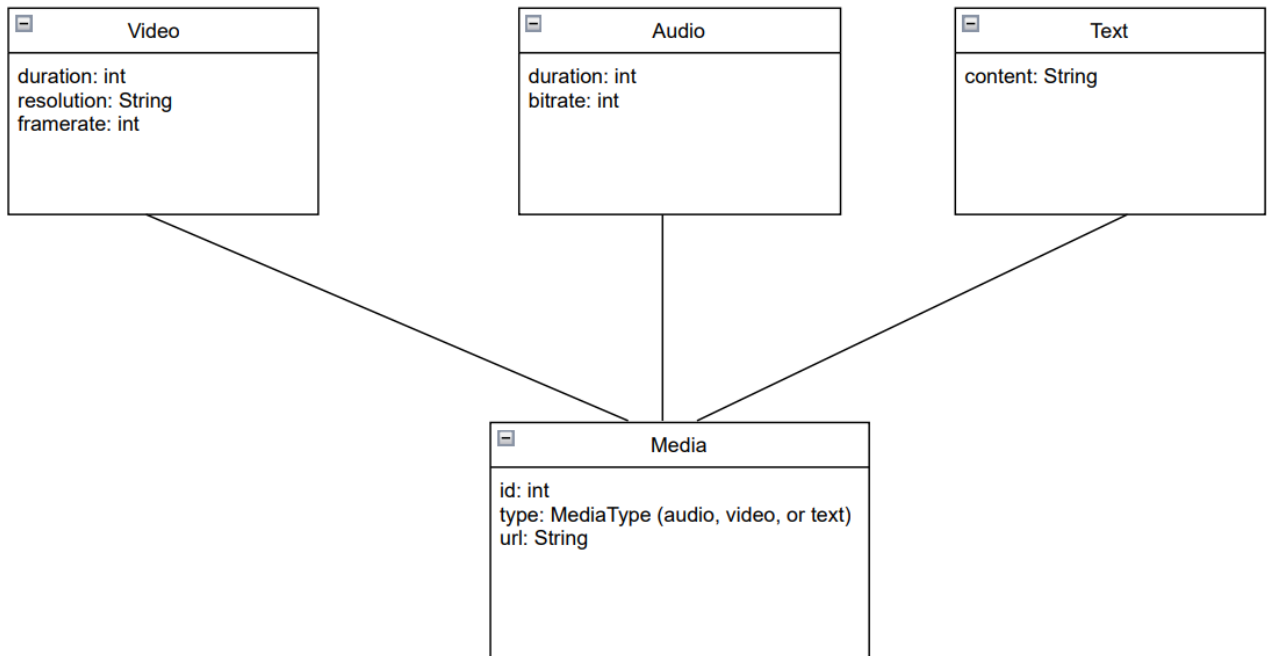
6. Use Case Diagram:-



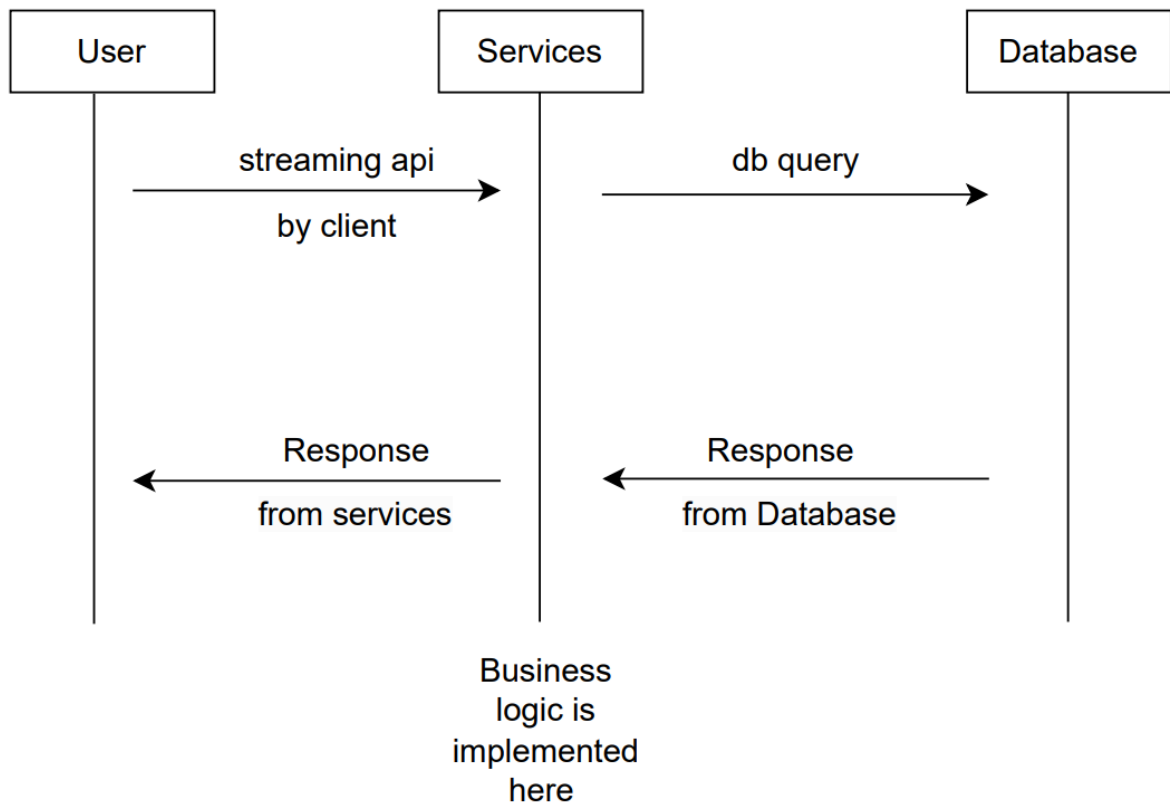
7. Class Diagram:-



Entities:-



8. Sequence Diagram:-



9. Future Scope:-

1. **User-Generated Content:** Enable users to upload, share, and interact with their own audio, video, and text content, transforming your platform into a dynamic hub for user creativity and collaboration.
2. **Enhanced Interactivity:** Implement a range of interactive features, including comments, ratings, real-time chat, and collaborative playlists, fostering user engagement and community building.