Backend problem statement, following software's should be installed in your laptop.

- VS Code
- Node JS
- NPM
- Mongo DB

## Exercise

Please build an API for a movie lobby for OTT applications. The lobby has a collection of movies with genre, rating, and streaming link. The API should allow users to:

1. List all the movies in the lobby
2. Search for a movie by title or genre
3. Add a new movie to the lobby
4. Update an existing movie information (title, genre, rating, or streaming link)
5. Delete a movie from the lobby

The API should be built using TypeScript and MongoDB. You can use any Node.js framework (such as Express or Nest.js) and any MongoDB library (such as Mongoose or MongoDB driver).

Please build the API with the following endpoints:

- `GET /movies`: List all the movies in the lobby
- `GET /search?q={query}`: Search for a movie by title or genre
- `POST /movies`: Add a new movie to the lobby (requires "admin" role)
- `PUT /movies/:id`: Update an existing movie's information (title, genre, rating, or streaming link) (requires "admin" role)
- `DELETE /movies/:id`: Delete a movie from the lobby (requires "admin" role)

You can assume that the request and response payloads will be in JSON format. The movie data should be ideally stored in a MongoDB database However if you are out of time then you can also use in memory DB.

Please provide clear instructions on how to set up and run the API on a local machine. Also, please include a brief documentation of the API, including sample requests and responses for each endpoint. Additionally, please provide a set of test cases and ensure that the tests are written in TypeScript as well.

Depending on the time left it will be nice if you can use caching to reduce the load on the database and speed up response times.

To ensure quality, please implement the following measures:

- Write unit tests and integration tests for each endpoint to ensure that the API functions as expected. You can use any testing framework (such as Jest or Mocha). If you are out of time then add at least few integration and unit tests.
- Use a code quality tool (such as ESLint) to ensure that the code follows best practices and is maintainable.