Create User Request Flow

Client	Spring	UsersController	UserRepository	SessionService

User Submits Signup Form

Send Request
POST /api/users
{username: "Kay", password: "abc123"}

— HTTP Request →

Create User Object
<User username="Kay", password="abc123">

— Calls UsersController #create →

Hash Password
"abc123" to "23F4DA..."

— Calls UserRepository #save →

Saves User to DB
INSERT INTO users...

Gets User Data
E.g. the ID

Gathers Data ← (from Gets User Data)

Generates Token
Encrypt username using SecretKey

Calls #generateToken with username

Creates Session
With user & token info

Returns encrypted token authenticating the user

Converts to JSON
{ user: ..., token: "14SA4..." }

— HTTP Response →

Stores Session
In LocalStorage

Client	Spring	TracksController	TrackRepository	TokenAuthorizationFilter

Send Request
GET /api/tracks
With token as Authorisation header

Validate Request

— Send Request Details →

Does this Request have a token?

Is the token valid against our secret key?

Decrypt Token
To get username

Return Forbidden if Token is Bad

Otherwise, call controller for request

— Call TracksController #index →

Call Repository

— Call TrackRepository #findAll →

Get All Tracks from Database
SELECT * FROM tracks...

Return Results

Convert to JSON

Render UI
Convert JSON into list of tracks