# 📘 Project Documentation: BikeHub Angular App

## 1. Overview

BikeHub is a frontend Angular application that displays a catalog of bikes, allows users to like bikes, and supports user authentication. It integrates with a backend API (SoftUni Practice Server) and uses Angular 20 features like signals and interceptors.

## 2. Features

* User authentication (login/logout)
* User profile editing
* Display bikes with images and all items
* Like functionality (user-specific and total like count)
* Book test ride for particular bike and like it
* Review and edit book list
* Responsive UI
* Token-based API communication

## 3. Project Structure

src/  
├── app/  
│ ├── core/  
│ ├── features/  
│ ├── models/  
│ ├── shared/  
│ └── app.module.ts  
├── assets/  
│ └── images/  
├── environments/  
│ └── environment.ts

## 4. Setup Instructions

Prerequisites:

- Node.js & npm  
- Angular CLI

Installation:

npm install  
ng serve

Server starting:

Node server.js

Environment Configuration:

Update environment.ts with your backend API URL:

export const environment = {  
 apiUrl: 'https://your-backend-url.com/api'  
};

## 5. Services

BikesService:

- getAllBikes(): Fetches all bikes  
- getBikeById(id: string): Fetches a specific bike  
- mapBikeData(): Transforms backend data into flat array

LikeService:

- getLikesForBike(bikeId: string): Returns total likes  
- getUserLike(bikeId: string, userId: string): Returns if user liked the bike

AuthService:

- Handles login/logout  
- Stores token in localStorage  
- Uses Angular signals for reactive auth state

## 6. Image Handling

Bike images are stored in src/assets/images. Use relative paths in your templates:

<img [src]='assets/images/' + bike.image alt='{{ bike.name }}'>

## 7. Signals & Interceptors

Signals are used for reactive state management (e.g., auth status). HTTP interceptor adds token to outgoing requests.

## 8. Future Improvements

* Add bike filtering and sorting
* Implement user registration
* Add comments or reviews
* Improve mobile responsiveness

## 9. License

MIT License