MyFullStackApp - Project Documentation

# 1. Introduction

MyFullStackApp is a full-stack application developed using C# and .NET technologies. It includes a backend REST API (ASP.NET Core), a Web UI (ASP.NET Razor Pages with SignalR), and a cross-platform mobile application using .NET MAUI.

# 2. Project Structure

The folder structure for the application is organized as follows:

MyFullStackApp/  
├── src/  
│ ├── Backend/ ← ASP.NET Core Web API  
│ ├── WebUI/ ← ASP.NET Razor Pages + SignalR  
│ └── Mobile/ ← .NET MAUI Android app  
└── docs/ ← Setup & deployment instructions

# 3. Backend Setup

1. Navigate to the Backend folder.  
2. Build and run the ASP.NET Core API project.  
3. Endpoints include authentication, customers, and order management.  
4. Ensure CORS and JWT settings are properly configured in appsettings.json.

# 4. Web UI Setup

1. Navigate to the WebUI folder.  
2. Update appsettings.json with the Backend API URL.  
3. Build and run the Razor Pages application.  
4. Features:  
 - Login page with JWT-based authentication  
 - Customer list display  
 - Order management per customer  
 - SignalR real-time updates

# 5. Mobile App Setup

1. Navigate to the Mobile folder.  
2. Open with Visual Studio and ensure MAUI workloads are installed.  
3. Update API endpoint to match backend.  
4. Build and deploy the MAUI app to Android device/emulator.

# 6. Push Notification & SignalR Integration

The Web UI uses SignalR to receive push updates whenever an order is added via API. This ensures real-time data synchronization behind firewalls or across networks.

# 7. Deployment

For deployment:  
- Backend: Host with IIS, Azure App Services, or Docker.  
- WebUI: Deploy as static site or Razor app.  
- Mobile: Build APK and distribute or publish via Play Store.  
- Configure HTTPS, firewall rules, and API gateways as needed.