Problem Statement

Managing authentication and authorization for multiple tenants in a SaaS application is challenging. Each tenant (e.g., a company, organization, or group) must securely access the system without interfering with others. For instance, in a property management SaaS app:

- **Landlords** need access to manage properties and tenants.
- **Tenants** need restricted access to their own property information.
- **Maintenance staff** require access to work orders across multiple tenants.

Without a proper authentication system:

- **Security risks** arise, like unauthorized data access.
- **Scalability suffers**, as onboarding new tenants becomes manual and error-prone.

Solution: This project implements a **multi-tenant authentication system** using:

- **Azure AD B2C** for secure and isolated user management.
- **.NET APIs** to enforce role-based access control.
- **React.js** for dynamic, tenant-specific user interfaces.

This approach ensures:

1. **Scalability**: Easily onboard new tenants without code changes.
2. **Security**: Each tenant's data is isolated and accessible only to authorized users.
3. **Flexibility**: Role-based UI adapts to users like landlords, tenants, or staff.