PROJECT WORKFLOW – RBAC SYSTEM (ADMIN / SUPERUSER / USER)

1. Project Initialization

- Create virtual environment

- Install FastAPI and dependencies

- Create project folder structure

2. Configuration Setup

- Create .env file

- Create config.py for loading environment variables

- Add settings for DB URL, JWT secret, etc.

3. Database Setup

- Choose PostgreSQL

- Create DB engine and session manager

- Configure Alembic for migrations

4. Database Schema Design

- User table

- Roles table

- Permissions table

- Role-Permission Mapping

- Tenant table

- User-Tenant Mapping

5. Authentication & Authorization

- Implement JWT-based login

- Hash passwords

- Create role validation functions

6. Core Features

Admin:

- Create tenants

- Assign roles and permissions

- Manage superusers

Superuser:

- Manage users within tenant

User:

- Access basic features

7. API Endpoints Development

- auth_router

- admin_router

- superuser_router

- user_router

8. Middleware & Security

- Authentication validation

- Role-based access control

9. Testing Flow

- Register → Login → JWT

- Admin → Tenant creation

- Role & permission assignment

- Superuser → User mgmt

- User → Restricted endpoints

10. Documentation

- Swagger

- README

- Workflow diagrams

END OF WORKFLOW DOCUMENT