CA - Prerequisites Document

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TITLE:

CareConnect – Elder Assistance Network

INTRODUCTION

CareConnect is a full-stack community assistance platform designed to connect elderly individuals with volunteers who can help them with daily tasks. The project is built using Angular for the frontend, Flask for the backend, and MongoDB for data storage.

SYSTEM REQUIREMENTS

1. Hardware Requirements:

● Processor: Intel Core i5 or higher
● RAM: Minimum 8GB (Recommended: 16GB for optimal performance)
● Storage: At least 10GB free disk space
● Operating System: Windows 10/11, macOS, or Linux

2. Software Requirements

● Node.js (v18.16.1 or later) – Required for running Angular frontend
● npm (v9.5.1 or later) – For managing Angular dependencies
● Python (3.11.9 or later) – Required for Flask backend
● MongoDB Atlas – Cloud-based NoSQL database
● VS Code – Recommended IDE
● Postman – For API testing and verification

TECHNOLOGY STACK

1. Frontend
● Angular (Web framework for building UI)
● TypeScript (Typed JavaScript)
● Angular Material / Tailwind CSS (for styling and responsive UI)

2. Backend
● Flask (Python web framework)
● Flask-CORS (Handles cross-origin requests)
● PyMongo (MongoDB connector)

3. Database
● MongoDB Atlas (Cloud-based NoSQL database for storing users and tasks)

SETUP INSTRUCTIONS

1. **Install Node.js and NPM**
   Download and install Node.js from [Node.js Official Website](#).
   Verify installation:

   node -v

   npm -v

2. **Install Python and Flask**
   Download and install Python from the [Python Official Website](#).
   Verify installation:

    python --version
    pip --version
   - Install dependencies:
    pip install flask flask-cors pymongo

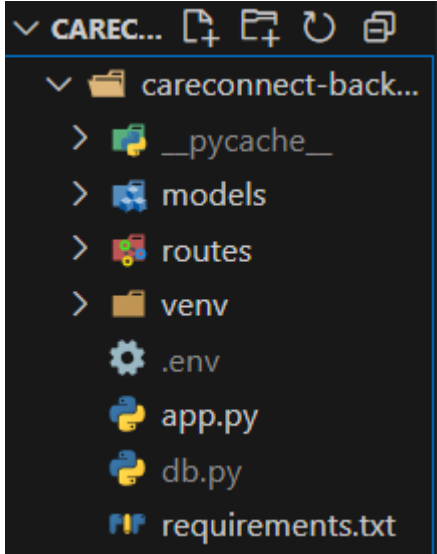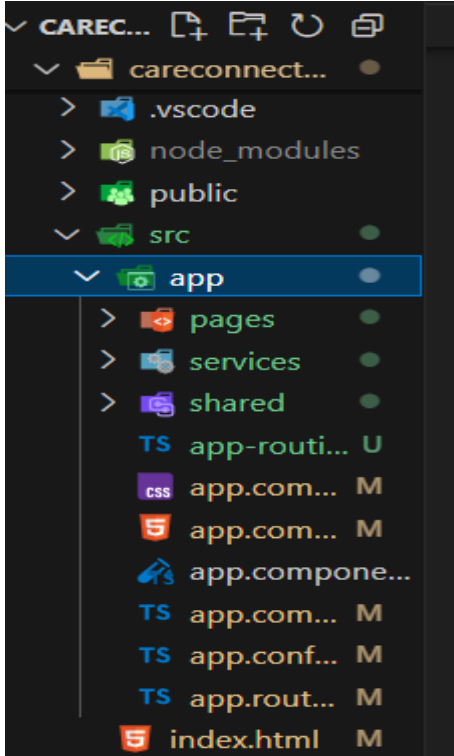3. **Setup MongoDB**
   Use **MongoDB Atlas** for cloud storage or install **MongoDB locally** from
   [MongoDB Official Website](#).
   Setup MongoDB Atlas
   - Create a cluster at https://www.mongodb.com/
   - Create collections: users, tasks
   - Connect using connection string in Flask

PROJECT STRUCTURE

Backend	Frontend

CONCLUSION

This document provides the prerequisites for setting up the **CareConnect** project including system setup, technology stack, and dependencies. Following the instructions ensures a smooth environment for development and demonstration of the CareConnect application.