CA - Prerequisites Document

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TITLE: The Idea Submission and Review Platform

INTRODUCTION

The Idea Submission and Review Platform is a full-stack web application developed to facilitate the submission, management, and review of innovative ideas by users. The platform allows users to submit their ideas, view existing submissions, and provide feedback or ratings. The frontend is built using Angular and TypeScript, while the backend is powered by Flask, and data is stored in MongoDB. This document outlines the necessary system requirements, technology stack, and setup instructions to run the project successfully.

SYSTEM REQUIREMENTS

1. Hardware Requirements

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

2. Software Requirements

- Node.js (v18.16.1 or later) For running the Angular frontend
- npm (v9.5.1 or later) For managing frontend dependencies
- Python (3.11.9 or later) For running the Flask backend
- MongoDB Atlas Cloud-based NoSQL database
- Visual Studio Code Recommended IDE for both frontend and backend development
- Postman For testing API endpoints

TECHNOLOGY STACK

1. Frontend

- Angular Component-based framework for building Uls
- TypeScript Strongly typed JavaScript for scalable code
- CSS For custom styling
- Flask Used to bridge communication between frontend and backend

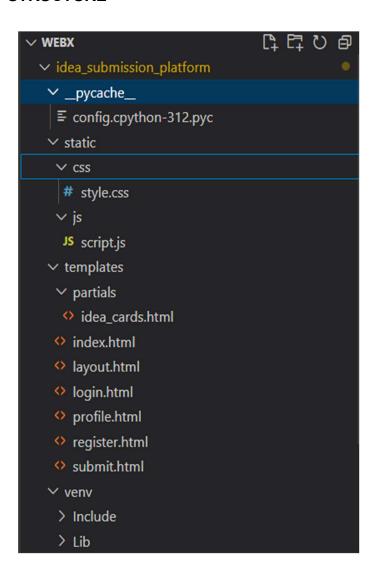
2. Backend

- Flask Lightweight Python web framework for handling API requests
- Flask-CORS To manage cross-origin requests
- PyMongo Python library to connect Flask with MongoDB

3. Database

 MongoDB Atlas – A cloud-based NoSQL database to store comic and review data

PROJECT STRUCTURE



CONCLUSION:

The Idea Submission and Review Platform offers an efficient and interactive space for users to share, explore, and evaluate innovative ideas. By leveraging Angular and TypeScript on the frontend and combining it with a Flask backend and MongoDB for data management, the platform exemplifies the strength of modern full-stack web development. The integration of MongoDB Atlas ensures scalable and reliable data storage, while the intuitive interface enhances user engagement. Altogether, this system delivers a seamless experience, empowering users to contribute creatively and collaboratively in a streamlined digital environment.