CA - Prerequisites Document

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TITLE : **Intermix(internship management)**

INTRODUCTION

The **Internship Management System** project is a **full-stack web application** built using **React (TypeScript) for the frontend**, **Flask for the backend**, and **MongoDB as the database**. This document outlines the prerequisites required before setting up and running the project successfully.

SYSTEM REQUIREMENTS

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

2. **Software Requirements**
   - **Python** (3.11.9 or later) – Required for Flask backend
   - **MongoDB Atlas** – Cloud-based NoSQL database
   - **VS Code** – Recommended IDE for both frontend and backend development
   - **Postman** – For API testing

TECHNOLOGY STACK

1. **Frontend**
● **HTML5:**
 Used to structure the web pages and content. It provides the backbone of the entire UI layout.

● **Bootstrap 5:**
 A responsive CSS framework used to create modern layouts quickly. It ensures that the application looks good on all screen sizes and devices with minimal custom CSS.

● **JavaScript (Vanilla JS):**
 Adds dynamic functionality to the application—such as form validation, DOM manipulation, interactive components, and client-side logic.

2. **Backend**
   - **Flask** (Python-based web framework)
   - **Flask-CORS** (To handle cross-origin requests)
   - **PyMongo** (For MongoDB connection)

3. **Database**
   - **MongoDB Atlas** (Cloud-based NoSQL database for storing product details)

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 Flask and required dependencies:
   ```
   pip install flask flask-cors pymongo
   ```

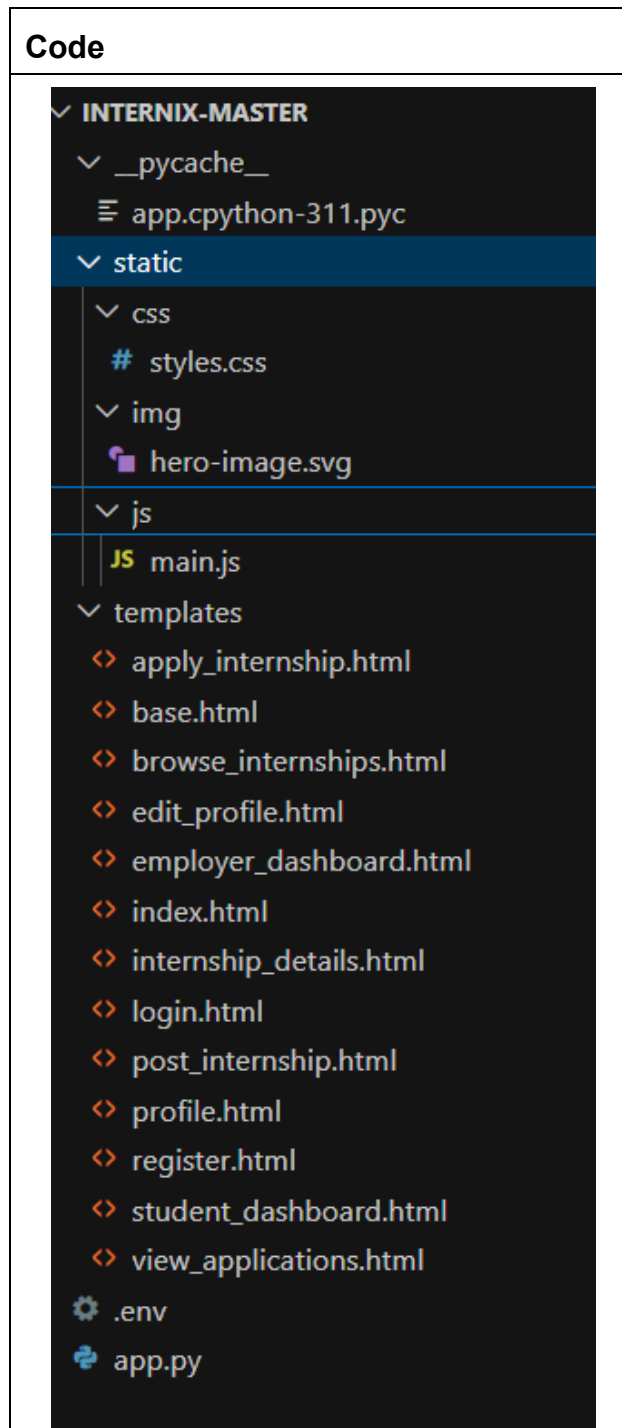3. **Setup MongoDB**
   Use **MongoDB Atlas** for cloud storage or install **MongoDB locally** from MongoDB Official Website.
   If using a local setup, start MongoDB using:
   ```
   mongod --dbpath /path/to/data
   ```

PROJECT STRUCTURE

```
Code

∨ INTERNIX-MASTER
  ∨ __pycache__
    ≡ app.cpython-311.pyc
  ∨ static
    ∨ css
      # styles.css
    ∨ img
      🔒 hero-image.svg
    ∨ js
      JS main.js
  ∨ templates
    <> apply_internship.html
    <> base.html
    <> browse_internships.html
    <> edit_profile.html
    <> employer_dashboard.html
    <> index.html
    <> internship_details.html
    <> login.html
    <> post_internship.html
    <> profile.html
    <> register.html
    <> student_dashboard.html
    <> view_applications.html
  ⚙ .env
  🐍 app.py
```

CONCLUSION

This document provides the necessary prerequisites for setting up the **INTERNIX** project, including hardware/software requirements. Ensuring all dependencies and configurations are correctly set up will help in running the project efficiently.