

WebX CA

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Title: Clothes Donation System

INTRODUCTION

The Clothes Donation App is a full-stack web application developed using React for the frontend, Flask for the backend, and MongoDB as the database. This project aims to create a digital platform where users can donate clothes to the needy with ease. The following document outlines the prerequisites needed to set up and run the application successfully.

SYSTEM REQUIREMENTS

1. Hardware Requirements

- **Processor:** Intel Core i5 or higher
- **RAM:** Minimum 8GB (Recommended: 16GB)
- **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 React frontend
- **npm** (v9.5.1 or later) – For managing frontend dependencies
- **Python** (3.11.9 or later) – Required for Flask backend
- **MongoDB Atlas** – Cloud-based NoSQL database
- **VS Code** – Recommended IDE for development
- **Postman** – For testing backend APIs

TECHNOLOGY STACK

1. Frontend

- **React.js** (JavaScript library for UI)
- **CSS** (for styling)
- **Axios** (for making HTTP requests)

2. Backend

- **Flask** (Python-based micro web framework)
- **Flask-CORS** (To handle cross-origin requests)
- **Flask-PyMongo** (For connecting to MongoDB)

3. Database

- **MongoDB Atlas** (Cloud NoSQL DB for storing user profiles, donations, and requests)

SETUP INSTRUCTIONS

1. Install Node.js and NPM

Download from <https://nodejs.org/>

```
node -v
```

```
npm -v
```

2. Install Python and Flask

Download from <https://www.python.org/>

```
python --version
```

```
pip --version
```

3. Install required dependencies

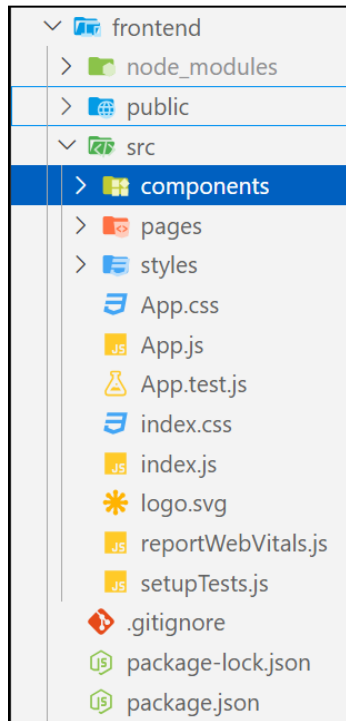
```
pip install flask flask-cors flask-pymongo
```

4. Setup MongoDB

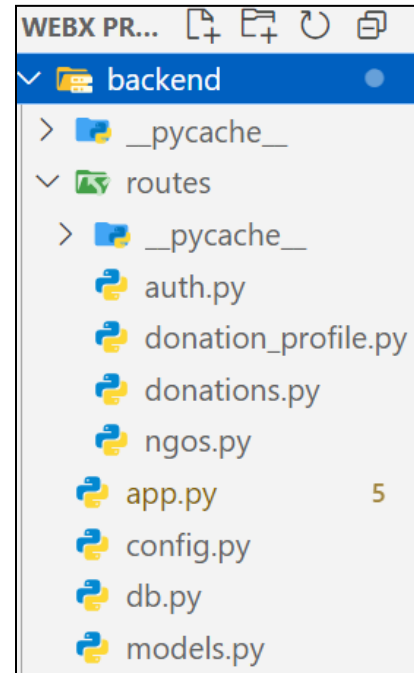
Use **MongoDB Atlas** (recommended) or install MongoDB locally: <https://www.mongodb.com/>

PROJECT STRUCTURE

Frontend



Backend



CONCLUSION

This document outlines the basic requirements and setup instructions for running the **Clothes Donation App** efficiently. Ensuring the proper installation of tools and dependencies will provide a smooth development and deployment experience.