

Frontend and Backend Run Instructions

How to Clone the Project and Run Frontend & Backend Separately

This document provides clear, step-by-step instructions to clone the project from GitHub and run the frontend and backend independently. Follow each section carefully.

1. Prerequisites

Ensure the following software is installed on your system:

- **Git** – to clone the project repository
- **Node.js** (v16 or above) – for frontend execution
- **npm** – comes with Node.js
- **Python** (v3.9 or above) – for backend execution
- **pip** – Python package manager
- **Virtual Environment (venv)** – recommended for backend isolation

 **Important:** Always use **two separate terminals** — one for backend and one for frontend.

- Ensure virtual environment is activated
- Ensure `requirements.txt` dependencies are installed
- Check Python version compatibility
- Confirm backend server is running
- Verify API base URL in frontend configuration

Check Installed Versions

```
node -v
npm -v
python --version
pip --version
```

2. Clone the Project from Git

Open a terminal or command prompt and run:

```
git clone <REPOSITORY_URL>
```

Example:

```
git clone https://github.com/your-org/your-project.git
```

Move into the project folder:

```
cd your-project
```

3. Project Structure (Example)

```
project-root/  
├── frontend/  
│   ├── package.json  
│   └── src/  
├── backend/  
│   ├── manage.py  
│   ├── requirements.txt  
│   └── backend_project/  
└── README.md
```

4. Running the Backend (Django Example)

Step 1: Navigate to Backend Folder

```
cd backend
```

Step 2: Create Virtual Environment (First Time Only)

```
python -m venv venv
```

Step 3: Activate Virtual Environment

Windows:

```
venv\Scripts\activate
```

Mac / Linux

```
source venv/bin/activate
```

Step 4: Install Backend Dependencies

```
pip install -r requirements.txt
```

```
python manage.py runserver
```

Backend will be available at:

```
http://127.0.0.1:8000/
```

5. Running the Frontend (React / Vite / Static Example)

Step 1: Open a New Terminal

(Keep the backend terminal running)

Step 2: Navigate to Frontend Folder

```
cd frontend
```

Step 3: Install Frontend Dependencies (First Time Only)

```
npm install
```

Step 4: Start Frontend Development Server

```
npm run dev
```

or

```
npm start
```

Frontend will be available at (example):

`http://localhost:3000/`

or

`http://localhost:5173/`

This document can be shared with teammates to easily clone and run the project.