

# Cab Forecasting

This repository contains the scaffold for the Cab Forecasting project: a FastAPI backend and a React

## Project Structure

```

  \ \ \
cab-forecasting/
  \ \ \ backend/
  \ \ \   \ \ \ main.py
  \ \ \   \ \ \ requirements.txt
  \ \ \   \ \ \ frontend/
  \ \ \       \ \ \ public/
  \ \ \       \ \ \ src/
  \ \ \       \ \ \ package.json
  \ \ \

```

## Prerequisites

- **Python 3.7+** and **pip**
- **Node.js 14+** and **npm**

## Backend Setup

1. **Create & activate a virtual environment**

```

```bash
cd backend
python -m venv venv
# macOS/Linux
source venv/bin/activate
# Windows
venv\Scripts\activate
```

```

2. **Install Python dependencies**

```

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

```

3. **Run the FastAPI server**

```

```bash
uvicorn main:app --reload --port 8000
```

```

#### 4. **\*\*Health check\*\***

Visit: <http://localhost:8000/>

## Frontend Setup

#### 1. **\*\*Install Node.js dependencies\*\***

```
``bash
cd frontend
npm install
``
```

#### 2. **\*\*Run the React app\*\***

```
``bash
npm start
``
```

#### 3. **\*\*Open in browser\*\***

<http://localhost:3000/>

## Running the Application

### ### ■ Separate Terminals

#### - **\*\*Terminal 1\*\***: Backend

```
``bash
cd backend
source venv/bin/activate # or venv\\Scripts\\activate on Windows
uvicorn main:app --reload --port 8000
``
```

#### - **\*\*Terminal 2\*\***: Frontend

```
``bash
cd frontend
npm install
npm start
``
```

### ### ■ Using `concurrently` (Optional)

#### 1. **\*\*Install\*\***

```
``bash
cd ..
npm init -y
npm install --save-dev concurrently
```

```
...
2. **Add to root `package.json`**
```jsonc
{
  "scripts": {
    "start:backend": "cd backend && venv\\Scripts\\python.exe -m uvicorn main:app --reload --port 8000",
    "start:frontend": "cd frontend && npm start",
    "start": "concurrently \"npm run start:backend\" \"npm run start:frontend\""
  }
}
...
3. **Run both**
```bash
npm run start
```
```

## Troubleshooting

- If `react-scripts` not found: ensure you ran `npm install` in `frontend/`.
- If the backend fails: check that the venv is activated and dependencies installed.