Tesseract API Project Documentation

(Full Stack Development)

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Project Overview

This project is an API for Optical Character Recognition (OCR) using Tesseract. The API allows users to upload images or provide base64-encoded image data and retrieve text and bounding boxes of recognized characters from the image.

Requirements

- **Python 3.12+**
- **Tesseract OCR binaries**
- **Django 3.2.25**
- **Requests library for API testing**
- **Pillow (PIL) for image processing**

Setup Instructions (Windows)

1. Clone the Repository

```
git clone https://github.com/nikhil697/api_server.git
cd tesseract_api
```

2. Install Python Dependencies

Make sure Python and `pip` are installed. Then, run the following command to install the project dependencies:

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

3. Running the Project Locally

To run the project, you need to split the terminal and run two separate commands.

Step 1: Start the Django Server

In the first terminal, run the following command to start the server:

```
python manage.py runserver
```

This will start the Django development server on `http://localhost:8000/`.

Step 2: Run the Tests

In the second terminal, run the test script:

cd tesseract_api/api/

```
python test_main.py
```

This will run the automated tests for the API functionality.