Setup Guide: Mobile Disease Detection App

Before You Start

System Requirements: This app can run on Windows, Mac, or Linux.

Required Software Installations:

Python (version 3.6 or higher)

A code editor (like Visual Studio Code or PyCharm) is recommended but not required.

Estimated Setup Time: Approximately 30-60 minutes.

Step 1: Install Python

Download Python:

Go to the official Python website.

Choose the version suitable for your operating system (Windows, Mac, or Linux) and click on the download link.

Install Python:

Follow the installation prompts. Make sure to check the box that says "Add Python to PATH" during installation.

Verify Installation:

Open your command line interface (Command Prompt on Windows, Terminal on Mac/Linux).

Type the following command and press Enter:

```
python --version
```

You should see the installed Python version. If you see an error, Python may not be installed correctly.

Common Troubleshooting:

If you encounter issues, ensure that Python is added to your system PATH. You can reinstall Python and check the option to add it to PATH.

Step 2: Download Project Files

Download the Project:

Obtain the project files from the source provided (e.g., a shared link or repository).

Extract the Project Files:

If the files are in a ZIP format, right-click on the ZIP file and select "Extract All" (Windows) or double-click the ZIP file (Mac) to extract.

Understanding the File Structure:

The main files you will see are:

- `app.py` : The main application file.
- `model.py` : Contains the AI model.
- `preprocessing.py` : Handles data preprocessing.
- `inference.py` : Runs the model on input data.
- `assets/disease_metadata.json` : Contains metadata about diseases.
- `requirements.txt` : Lists the necessary Python packages.
- `README.md` : This guide and additional information.

Step 3: Install Dependencies

Open Command Line Interface:

Navigate to the folder where you extracted the project files.

Run the Requirements Installation:

Type the following command and press Enter:

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

This command installs all the necessary packages listed in the `requirements.txt` file.

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What Each Major Dependency Does:

Libraries like `numpy` and `opencv-python` are used for image processing.

`tensorflow` or `pytorch` (depending on your model) is used for running the AI model.

Troubleshooting Installation Issues:

If you encounter errors, ensure you have a stable internet connection and that you are using the correct version of Python.

Step 4: First Run

Start the Application:

In the command line, type the following command and press Enter:

```
python app.py
```

What to Expect on First Launch:

The application should start, and you will see a user interface for disease detection.

Initial Configuration:

If prompted, follow the on-screen instructions to configure any necessary settings.

Step 5: Test with Sample Data

Using the Included Test Examples:

The application may come with sample images. Use these to test the functionality.

Loading Your Own Data (if applicable):

If you want to test with your own images, follow the instructions in the app to upload your files.

Verifying Everything Works Correctly:

Check the output of the application to ensure it correctly identifies diseases based on the input data.

input data.

Troubleshooting

Common Error Messages and Solutions:

If you see "Module not found", ensure all dependencies are installed correctly.

Performance Issues and Fixes:

If the app runs slowly, ensure your device meets the system requirements and close any unnecessary applications.

When to Seek Technical Help:

If you encounter persistent issues that you cannot resolve, consider reaching out for help.

Getting Help

Log File Locations:

Check the project directory for any log files that may provide error details.

Information to Include When Asking for Help:

Describe the issue clearly, include error messages, and mention your operating system.

Next Steps if Setup Fails:

Review the setup steps again, check for typos, and ensure all software is correctly installed.