

# Cryptocurrency Price Prediction with LSTM

This project is a Streamlit application for cryptocurrency price prediction using LSTM (Long Short-Term Memory) models. The app allows users to select a cryptocurrency, specify a date range, and predict future prices based on historical data.

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## Prerequisites

### Python Version

- Ensure that **Python 3.9** is installed on your system. You can download it from the official Python website: [Python Downloads](#).

### Required Libraries

The following Python libraries are required for the project:

- `streamlit`
- `yfinance`
- `pandas`
- `numpy`
- `matplotlib`
- `scikit-learn`
- `tensorflow`

You can install all dependencies by running the following command in your terminal:

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

### `requirements.txt`

If the file is not included, create one with the following content:

```
streamlit  
yfinance  
pandas
```

numpy  
matplotlib  
scikit-learn  
tensorflow

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## Instructions

### 1. Clone or Download the Repository

- Clone this repository or download it as a ZIP file and extract it to a directory on your system.

### 2. Navigate to the Project Directory

- Open a terminal or command prompt.
- Navigate to the directory containing the `Cryptocurrency.py` file. For example:

```
cd /path/to/your/project/directory
```

### 3. Run the Application

- Execute the following command to start the Streamlit application:

```
streamlit run Cryptocurrency.py
```

- This will open the application in your default web browser. If it doesn't open automatically, look for the URL (e.g., `http://localhost:8501`) in your terminal output and open it manually in a browser.

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## Notes

- If you encounter issues with TensorFlow installation, refer to the official [TensorFlow Installation Guide](#).
  - Ensure your system has access to the internet, as the app fetches live data using the `yfinance` library.
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# Support

For further assistance, please contact:

**Ryan Baertlein**

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- Documentation: [How the Website Works](#)

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Enjoy exploring cryptocurrency predictions!