Documentation for the POC

**Name of the POC:** BitCoin Prediction

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**Overview:**

The main aim is to predict the prices of bitcoin using:

1. LSTM
2. BiDirectional LSTM

Tools: Google Collaboratory, Visual Studio Code Composer

**Steps Involved:**

Ex:

1. Dataset Collection
2. Feature Engineering
3. Trained the LSTM model
4. Dashboard for graph (forecasted data) using Dash
5. UI (Flask app) for prediction

**Challenges faced during the POC:**

* Choosing the dataset: Firstly, considered the 60s interval data of years from Jan 2014 to May 2021. This dataset has lot of NaN values so ultimately affecting the time sequences.
* Stacked LSTM model: The deviation between the actual vs predicted price was more

**How did you tackle the challenges:**

* Considered the 1- day data from Jan 2014 to May 2021 and splitting the data in three parts: - train (70%), valid (20%), and test (10%).
* Stacked LSTM: Tuned the parameters and adding dropout in each layer
* Trained using another LSTM model i.e., Bidirectional and the deviation was low as compared to the Stacked LSTM