

## 2. Why the Agile Model is Ideal for Bitcoin Price Prediction

The Agile development model aligns exceptionally well with the task of predicting Bitcoin prices due to its:

- **Adapts to Changes:** Agile methodology is designed to accommodate changes in project requirements and market conditions, which is crucial for financial models affected by fluctuating markets like Bitcoin.
- **Iterative Development:** Allows for frequent adjustments based on feedback and new insights, which can be critical when dealing with complex and unpredictable data such as Bitcoin prices.
- **Regular Feedback Cycles:** Agile promotes regular reviews and iterations, enabling continuous improvement of the model based on the latest data and technological advancements.
- **Incremental Delivery:** Ensures that the model is developed in manageable increments, allowing for ongoing testing and refinement which is vital for tuning high-performance LSTM networks.
- **Collaborative Approach:** Agile facilitates closer collaboration between developers, data scientists, financial analysts, and other stakeholders, enhancing the model's relevance and effectiveness.
- **Transparency:** Regular updates and iterations provide transparency, helping build trust and manage expectations among stakeholders, including potential investors and regulatory bodies.
- **Early Problem Detection:** Frequent iterations enable early detection of issues and potential risks, reducing the likelihood of major setbacks and ensuring smoother project progress.
- **Feedback Loops:** Regular feedback and testing loops help in identifying and mitigating risks associated with data quality, model accuracy, and compliance with financial regulations.