**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 31 October 2023 |
| Team ID | 591944 |
| Project Name | Time Series Analysis For Bitcoin Price Prediction Using Prophet |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | In the highly volatile world of cryptocurrency, the lack of reliable Bitcoin price predictions poses a significant challenge for investors and traders. This project aims to tackle this problem by providing accurate and timely forecasts of Bitcoin's price movements. |
| 2. | Idea / Solution description | Our solution leverages the power of the Prophet forecasting model, a creation of Facebook's Core Data Science team. Prophet is known for its exceptional capabilities in capturing daily, weekly, and yearly seasonality, making it a game-changer in predicting Bitcoin prices. We're not just stopping at modeling; our comprehensive approach encompasses data collection, meticulous preprocessing, and the application of Prophet to generate predictions. Our goal is to empower crypto enthusiasts with actionable insights that will help them make profitable investment decisions. |
| 3. | Novelty / Uniqueness | What sets us apart is the cutting-edge application of Prophet to the ever-fluctuating cryptocurrency market. This novel approach allows us to capture the nuances of Bitcoin price movements, including holiday effects and outliers, with unparalleled precision.  Our project also explores innovative features such as real-time data integration and AI-driven anomaly detection, ensuring that our predictions are not just accurate but also up-to-the-minute. |
| 4. | Social Impact / Customer Satisfaction | Beyond the realm of finance, our solution has the potential to make a significant societal impact. By equipping investors with accurate predictions, we're helping them safeguard their financial interests and make well-informed decisions.  We're fully focused on making you happy. We get how tough and risky cryptocurrency trading can be, and we're here to give you the tools you need to thrive. Your satisfaction is our top priority. |
| 5. | Business Model (Revenue Model) | Success breeds success. We've designed a multi-faceted business model to ensure that our success translates into profitability:  Premium Subscriptions: Investors can choose from various subscription plans, each offering a unique blend of features and prediction accuracy.  Enterprise Solutions: We offer custom enterprise solutions, catering to the needs of institutional clients and businesses.  Data Licensing: Financial organizations can license our prediction technology, gaining a competitive edge in the market. |
| 6. | Scalability of the Solution | We're forward-thinking and ready for what lies ahead. Our solution is designed to effortlessly handle growing demand for cryptocurrency predictions. We've automated data collection and preprocessing, and our robust forecasting model is ready for whatever the future holds. We're well-prepared to tackle tomorrow's challenges using historical data. |

**Team Members:**

Pranay Kumar

Dinesh Sai