

# Data Engineering Final Project

## Teamwork Reflection

### Self-Reflection

Creating a Flask app with an HTML-based UI for stock predictions has been an enriching experience. I've gained a solid understanding of Flask fundamentals, learning how to set up routes, handle templates, and integrate them with HTML to build a functional user interface. Exploring various stock prediction models has been fascinating, requiring data preprocessing and analysis to derive meaningful insights. Challenges emerged, particularly in acquiring reliable real-time stock data and refining prediction models for accuracy. These hurdles highlighted the significance of data quality and iterative model improvement. Additionally, deploying the app introduced me to server configurations and scalability considerations, enhancing my understanding of application deployment. Looking ahead, I aim to further refine prediction algorithms, improve the UI/UX, and explore additional features while staying updated with the evolving landscape of Flask and predictive modeling. Overall, this project has not only expanded my technical skills but also emphasized the importance of persistence, user-centric design, and continuous learning in application development and data analysis.

### Peer Review:

#### **Revanth Chowdary Ganga:**

##### Positive Attributes:

- Proficiency in Azure Databricks for live data handling and real-time processing.
- Extracts valuable insights, enhancing stock prediction accuracy.
- Effective communication and collaboration skills for seamless data integration.

##### Area of Improvement:

- Challenges include inconsistent data sources impacting prediction accuracy.
- Potential hurdles in managing and optimizing data pipelines in Azure Databricks.
- Juggling multiple project deadlines might affect focus and project delivery.

## **Divya Sharma:**

### Positive Attributes:

- Expertise in Azure Web App deployment, ensuring smooth transition to production.
- Understanding of scalability factors for potential traffic surges.
- Proficiency in Docker Hub for container encapsulation but room for better code documentation.

### Area of Improvement:

- Challenges in managing multiple project deadlines, needing prioritization strategies.
- Suggestion for more repository pushes for continuous integration.
- Better management of workload

## **Ayush Gupta:**

### Positive Attributes:

- Contributions in comprehensive project documentation and communication.
- Crafting a clear README and creating a demo video for effective presentation.

### Area of Improvement:

- Suggestion for more repository pushes for continuous integration.
- Balancing multiple project deadlines affecting productivity and progress.

### Feedback Session:

Throughout our project, each team member encountered distinct challenges, from my task of creating a comprehensive Flask web app to Revanth's work with Azure Databricks and Divya's focus on Azure Web App deployment. Despite these hurdles, Ayush emphasized documentation, CI/CD and IaC. However, our success stemmed from robust communication and collaboration. Clear discussions and leveraging individual strengths allowed us to tackle every aspect of the project. Transparent communication and mutual support were pivotal in navigating challenges collectively, culminating in the successful completion of all project

facets. This experience highlighted the critical role of teamwork and open communication in accomplishing our shared goals.