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| Business Scenario | As a user, I need a data ingestion process that ensures data availability checks before model runs, triggers error notifications for data issues, and allows ad hoc runs to maintain accurate demand forecasting. The application must comply with AWS performance benchmarks and enterprise security guidelines, handle multiple users, log errors, and provide robust error handling, while also supporting a four-week forecast freeze period and offering comprehensive historical forecast analysis and adjustments. |
| Benefit | Implementing a robust data ingestion process for demand forecasting ensures data reliability through pre-run checks and error notifications, enhancing forecast accuracy and integrity. Supporting ad hoc runs enables agile response to business changes, while compliance with AWS benchmarks and security guidelines ensures scalable, secure operations for multiple users. Comprehensive error handling and logging facilitate quick issue resolution, supporting strategic planning with forecast freeze periods and historical analysis for continual improvement of forecasting accuracy. |
| Description | The demand forecasting application's data ingestion process ensures high reliability and accuracy by conducting thorough data availability checks before model execution. It promptly notifies stakeholders of any data issues, enabling quick resolution to maintain data integrity. The system supports ad hoc forecast runs for agility in response to dynamic business conditions. It complies with AWS performance benchmarks and enterprise security standards, utilizing AWS Lambda for serverless processing, S3 for secure data storage, and RDS for robust database management. The application is designed to handle multiple users efficiently with robust error logging and supports a forecast freeze period for stability, while offering comprehensive historical analysis tools to refine forecasting accuracy over time. |