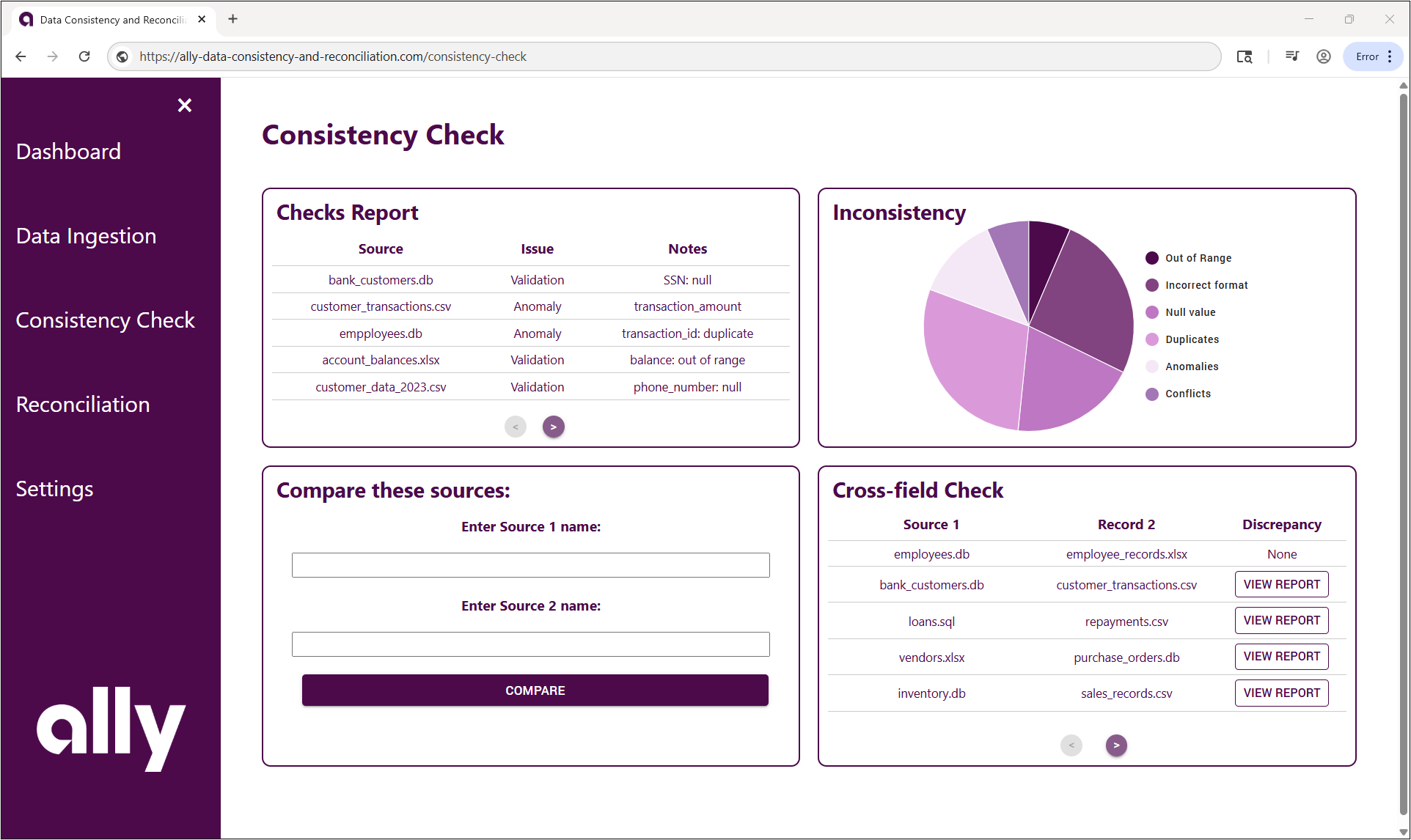
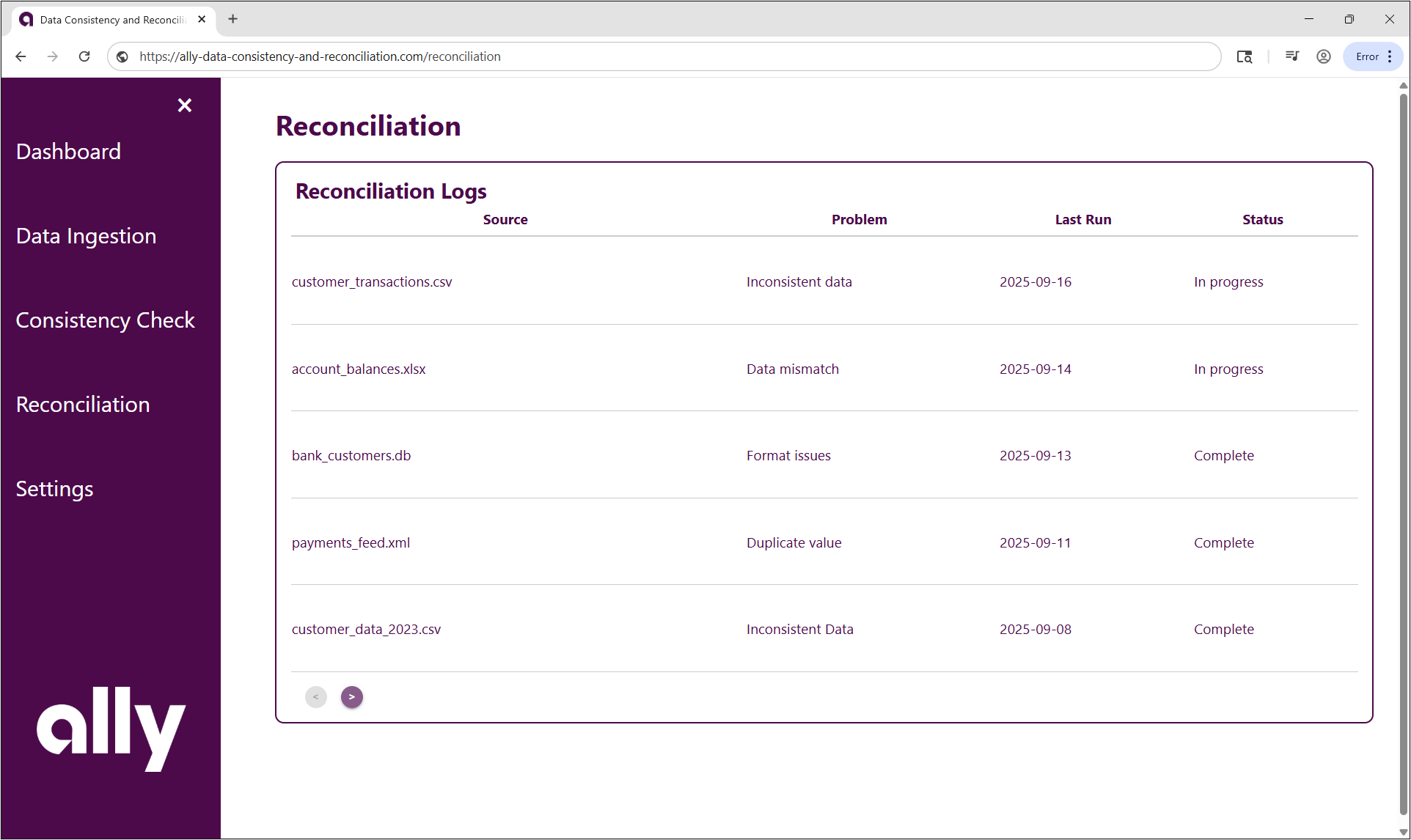
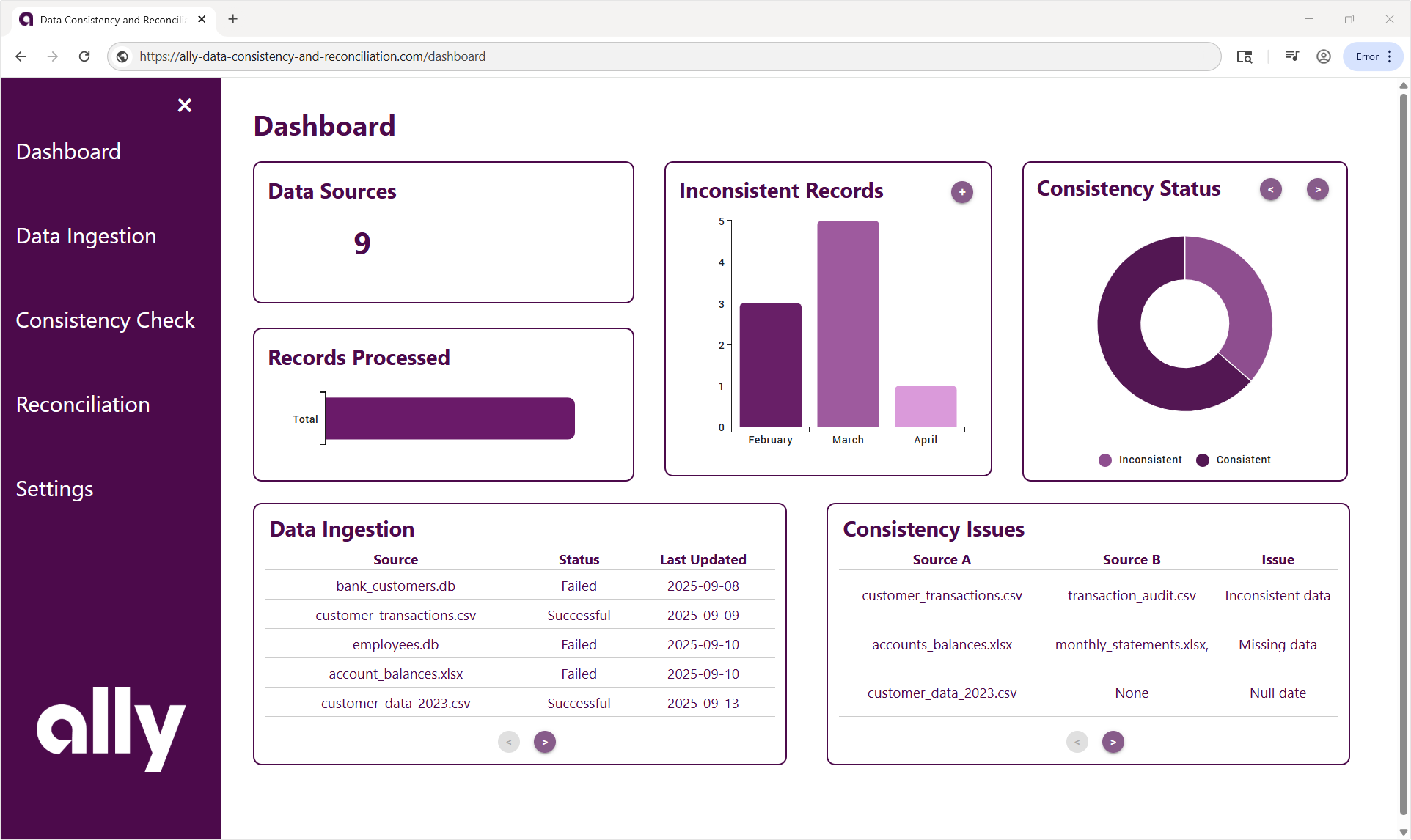
Design Day Booklet Team Page







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Ally

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Ally Financial, headquartered in Detroit, Michigan, is one of the leading financial service companies in the United States. As one of the largest online-only banks, with approximately 11 million customers, the company provides a full range of banking services through modern technology.

Given the rapid growth in data-driven decision-making, Ally Financial employees heavily rely on multiple data sources for critical business processes. This requires effective management and analysis of data to ensure consistency and accuracy across different systems as volume and variety of data expand.

When done manually, this is a time-consuming process and result in some discrepancies being overlooked until they impact reporting. Hence, there is a growing need for a solution that streamlines this process, to not only save time but also build confidence in the data at Ally.

Our data consistency and reconciliation tool analyzes and validates multiple data sources. The application automatically detects anomalies and generates reports that highlight the issues.

After accessing the application, users are presented with a dashboard that showcases summarized overview of data sources and consistency check through charts and tables. The data ingestion page enables users to upload data sources in various formats. The system applies predefined validation rules to check consistency in the data. Two different data sources can be selected to reconcile and identify the mismatched records. Additionally, the reconciliation log presents users with history of inconsistencies in the data sources.

The user interface is developed using React. Data is stored and processed in Snowflake, a cloud-based data warehouse platform. Flask, a Python web framework, is used to transfer data between the frontend and database.

CSE498 | 8:00 a.m. – Noon Computer Science and Engineering, Third Floor | 3200/3300 Hallway

Ally Financial

Data Consistency and Reconciliation Tool