

ROBOTIC PROCESS AUTOMATION CASE STUDY

DATABASE RECORD MIGRATION AUTOMATION



OVERVIEW

The project involved automating the migration of data from an Oracle database to a MySQL database. The system was designed to streamline the process of exporting data from Oracle, importing it into MySQL, and validating the data integrity, thereby reducing manual effort and increasing efficiency.

PROBLEM

Time-Consuming Process:

- 1 Exporting data, importing it, and validating the results required significant time and effort.

Data Integrity Issues: There was no reliable method to ensure that all data was transferred accurately between databases.

Error-Prone: Manual handling of large datasets led to discrepancies and missed data records

Limited Notifications: Manual processes lacked real-time error notifications or status updates.

SOLUTION

UiPath bots automate the process with:

1

Application Automation: Automate the launch of the Oracle application data and MySQL data.

2

Excel Automation: Read queries and table details from an Excel file stored at a specified file path and create excel. Extract and compare record counts from both Oracle and MySQL data.

3

Incremental Data Migration: Enable partial exports to migrate only updated records, minimizing redundancy and improving efficiency.

4

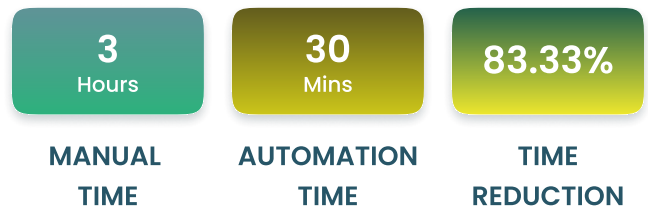
Email Automation: Configure success or failure email notifications with the generated .xlsx file attached for stakeholder review.

ACTION

- Automate the launch of the Oracle application to initiate data extraction.
- Execute predefined queries to extract data from all Oracle tables and save in desired folders.
- Automate the front-end process for importing CSV files into MySQL and exporting from MySQL.
- Generate CSV/Excel reports listing tables with Import Count, Export Count, and Differences.
- Configure email notifications to inform stakeholders of task completion and error alerts.

RESULTS

1. Enhanced Efficiency :



2. Improved Accuracy:

- Error Reduction : **98%**

3. Timely Delivery : System – generated data is consistently delivered by 10.15 a.m. daily.

4. Optimized Workflow : Export and import counts were matched, ensuring data integrity. Comprehensive CSV/Excel reports provided clear insights into data migration status and discrepancies.

FUTURE PLANS

1. Cloud Integration: Extend the system to support cloud databases like AWS RDS or Google Cloud SQL.

2. Data Transformation: Add capabilities for data formatting and transformation during migration.