

# ROBOTIC PROCESS AUTOMATION CASE STUDY

## FINANCIAL MANAGEMENT SYSTEM – ACCOUNTING AND TRADING AUTOMATION



## OVERVIEW

A financial services firm optimized its compliance workflows with NSE and BSE by automating manual tasks like logging in, handling CAPTCHA, downloading reports, and processing data. The automated system streamlined data extraction, processing, and uploads to the FMS, enhancing accuracy, efficiency, and compliance adherence.

## PROBLEM

1

**Manual Login :** User login required manual entry of credentials and OTP retrieval from email with time 15-minute validity window.

2

### Inefficient Data Retrieval :

Downloading reports from NSE and BSE platforms involved navigating complex paths and applying date filters manually

3

**Error-Prone Processing :** Mapping and validation of downloaded data often led to mismatches and errors, requiring extensive manual corrections.

4

### Manual File Upload :

Log in to the FMS portal and manually upload the required files.

## SOLUTION

1

**Web Automation :** Automated login to NSE and BSE, handling OTPs. Downloading reports with date filters (e.g., T-60 days or T-1).

2

**Database Automation:** Execute queries and retrieve FMS data which contains client details.

3

**Excel Automation:** Validate critical fields (e.g., franchisee names, PAN numbers, six-series codes) and format Excel data.

4

**API Automation:** Call APIs to upload the processed file into the FMS table of the respective database.

5

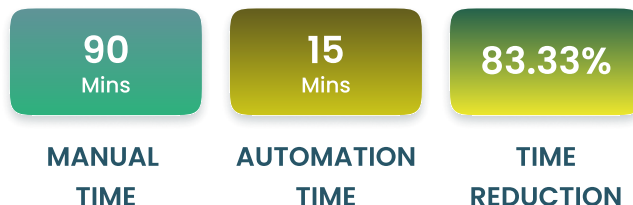
**Email Automation:** Send emails with attached files to the franchisee using a fixed template, and trigger success or failure emails.

## ACTION

- Automate the login process and handle OTP verification.
- Navigate to the compliance sections and download the necessary reports.
- Integrate with the database to append additional data, such as ZZZ codes and 6-series.
- Filter and format the downloaded reports before sending them via email.
- Read files from the specified path and call the API to upload the processed files to the FMS database.

## RESULTS

### 1. Enhanced Efficiency :



### 2. Improved Accuracy:

- Error Reduction : **99%**

**3. Timely Delivery :** System - generated data is consistently delivered by 10:00 a.m. daily.

**4. Optimized Workflow :** This automation has helped with timely communication and accurate reporting ensured adherence to NSE and BSE requirements. It also reduced employee workload and improved operational efficiency.

## FUTURE PLANS

### 1. Enhanced CAPTCHA Resolution :

Investigate AI-based solutions for automated CAPTCHA handling.

### 2. Dynamic Report Customization:

Enable bot-driven customization of reports to accommodate varying date filters or compliance parameters without manual intervention.