

# Proof of Concept

**Bank**

Batch Process Automation



# Executive Summary

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# Executive Summary

Skillmine welcomes this opportunity to provide with the proof of concept for an automated solution to handle End of Day Batch Process Automation.

After initial understanding of the requirements and analysis of asks & data provided by Bank, we have come up with a simple Proof of Concept. Below mentioned is the positive flow:

- **Monitoring the Database:** The initial step to automate the ongoing business process is to establish connection with the database to monitor for updates. Different EOD & BOD batch tasks are executed based on the transaction updates to the database
- **Finnacle access & action:** Based on the changes in the database, Finnacle Login process is automated. Simple web based tasks such as filling out forms, submitting different actions are performed
- For a specific sample of the Batch automated with PoC, we have used a tool called helpSystems Automate Enterprise which is Skillmine recommended tool for RPA.

Further details of the PoC are provided in subsequent pages and product portfolio is attached.

# Proof of Concept

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# Automate Enterprise – Key Features

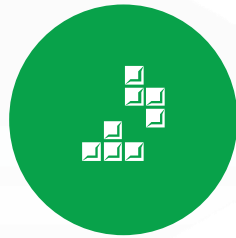
Automate Enterprise is the product with the flexibility to automate mission-critical IT and business processes for any organization.

## Scalable Infrastructure



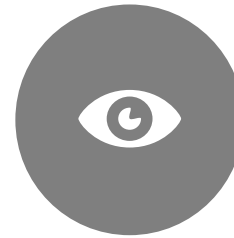
Easily and cost-effectively scale from basic automated tasks to full enterprise-level deployment. Automate Enterprise supports high availability and disaster recovery environments.

## Prebuilt Automation Building Blocks



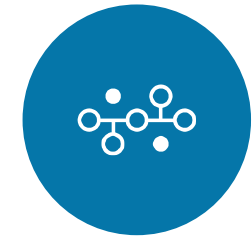
Automate Enterprise's workflows have the flexibility to automate almost any frontend or backend process, including those with variables, exceptions, or triggers.

## Detailed Visibility and Control



The Automate Enterprise Ops Console is a feature that gives you the ability to monitor and manage everything that's happening across your organization from any device.

## An Enterprise-Class Solution



Automate Enterprise enables your DevOps infrastructure and ties systems together to support continuous product delivery cycles.

# Current Business Key Challenges

End-of-day & beginning-of-day are operations performed in Finacle to mark the logical end-of-day for a branch level operations as well as the bank and mark the beginning of next working day.

There are three stages of EOD / BOD, such as (1) SOL level, (2) CPC level/DC in bank. Set of batches are run in these stages by team every day as a part of EOD / BOD.

## Below are key business challenges

### Continuous Monitoring

- System is dependent on individuals to run batches.
- Continuous monitoring is required for different closure timings of Branches (SOL level).

### Subject to Errors

- There are high chances of human errors while running batches and user may miss out on EOD validation items.
- This puts pressure on user to be correct in all details whether its running batches or while error handling.



### Manual Intervention

- One has to check for the pending EOD Blocking validations items manually.
- Current manual process is dependent on the Human ability to understand the process and resolve issues if there is any.

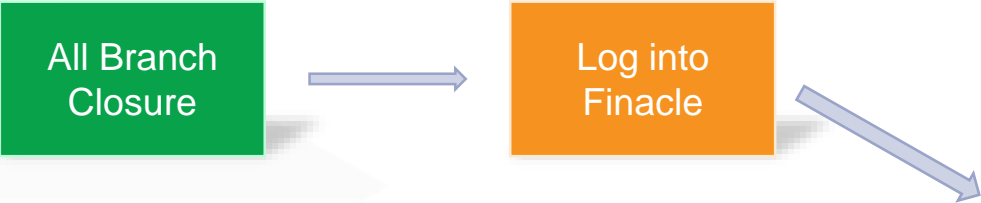
### Less Flexibility and Availability

- The user has to follow few procedure to check the blocking validation details & clearing it which is time consuming, inefficient and always dependant on the availability of the user.
- Newly hired staff needs training which is time consuming and depends on the ability of the user.

# Solution Objective

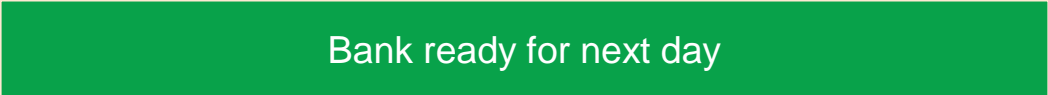
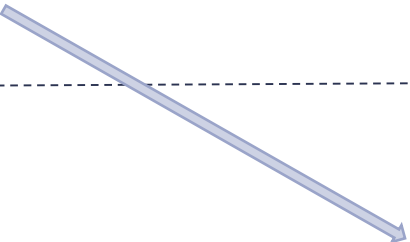
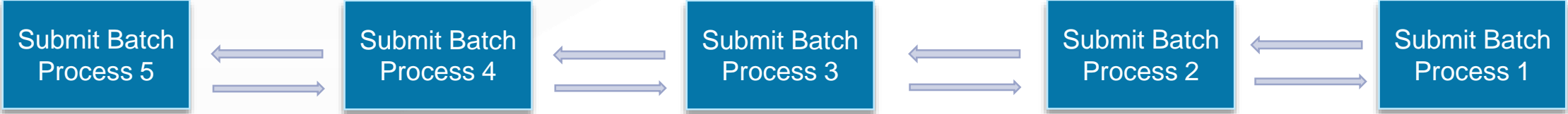
The primary goal of the solution is to support the batch processes that are executed one by one by bank employees after all the branches are closed and make them ready for next day transaction. Automating the process of monitoring the database, logging in to the Finacle Portal and submitting batch processes based on the relevant conditions.

Below is visual depiction of high-level Business objectives delivered for the solution:



Non Linear Batch Process

Email Reminders



# Solution Objective

## Technical Process Flow Depiction (Branch)

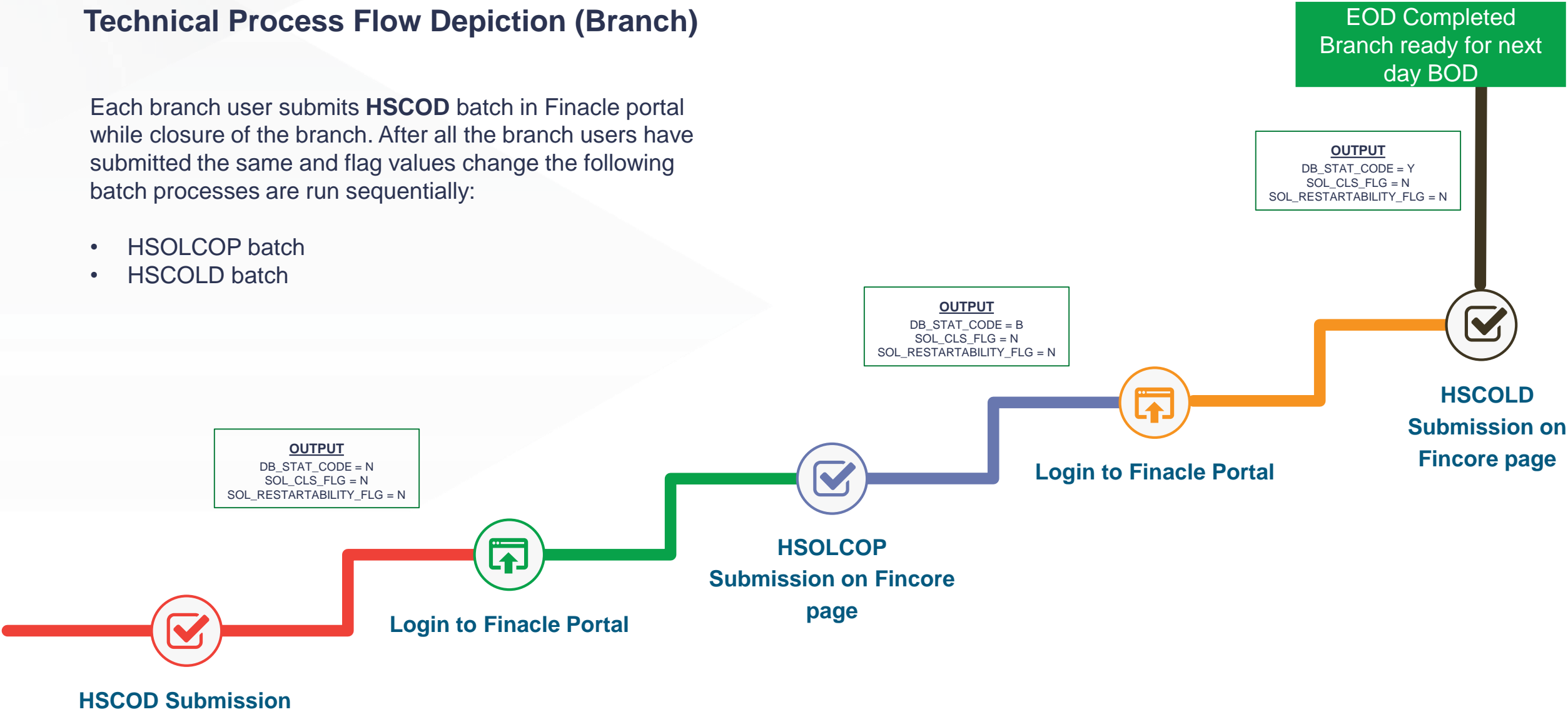
Each branch user submits **HSCOD** batch in Finacle portal while closure of the branch. After all the branch users have submitted the same and flag values change the following batch processes are run sequentially:

- HSOLCOP batch
- HSCOLD batch

**OUTPUT**  
DB\_STAT\_CODE = N  
SOL\_CLS\_FLG = N  
SOL\_RESTARTABILITY\_FLG = N

**OUTPUT**  
DB\_STAT\_CODE = B  
SOL\_CLS\_FLG = N  
SOL\_RESTARTABILITY\_FLG = N

**OUTPUT**  
DB\_STAT\_CODE = Y  
SOL\_CLS\_FLG = N  
SOL\_RESTARTABILITY\_FLG = N



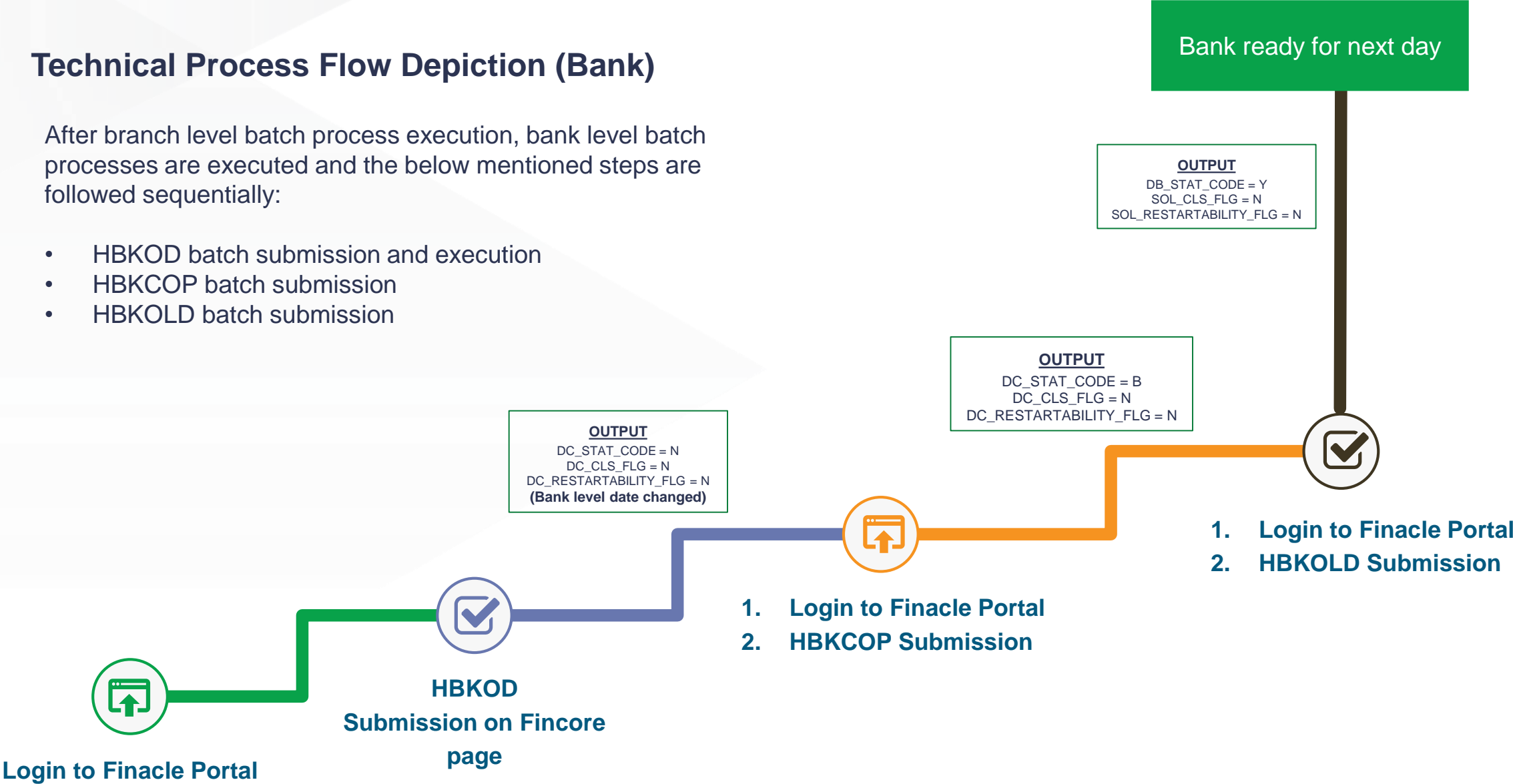


# Solution Objective

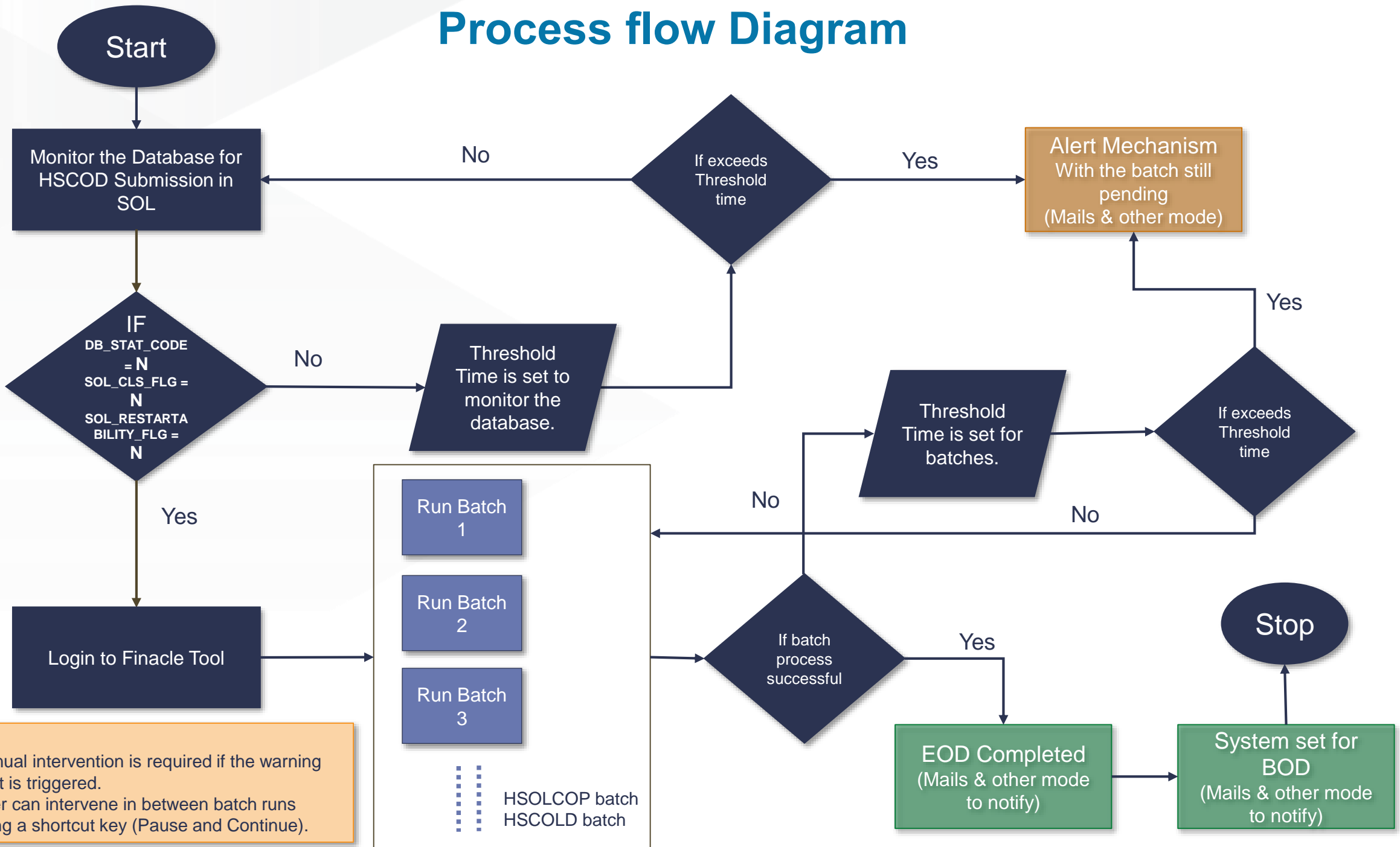
## Technical Process Flow Depiction (Bank)

After branch level batch process execution, bank level batch processes are executed and the below mentioned steps are followed sequentially:

- HBKOD batch submission and execution
- HBKCOP batch submission
- HBKOLD batch submission



# Process flow Diagram



Note:

- Manual intervention is required if the warning alert is triggered.
- User can intervene in between batch runs using a shortcut key (Pause and Continue).

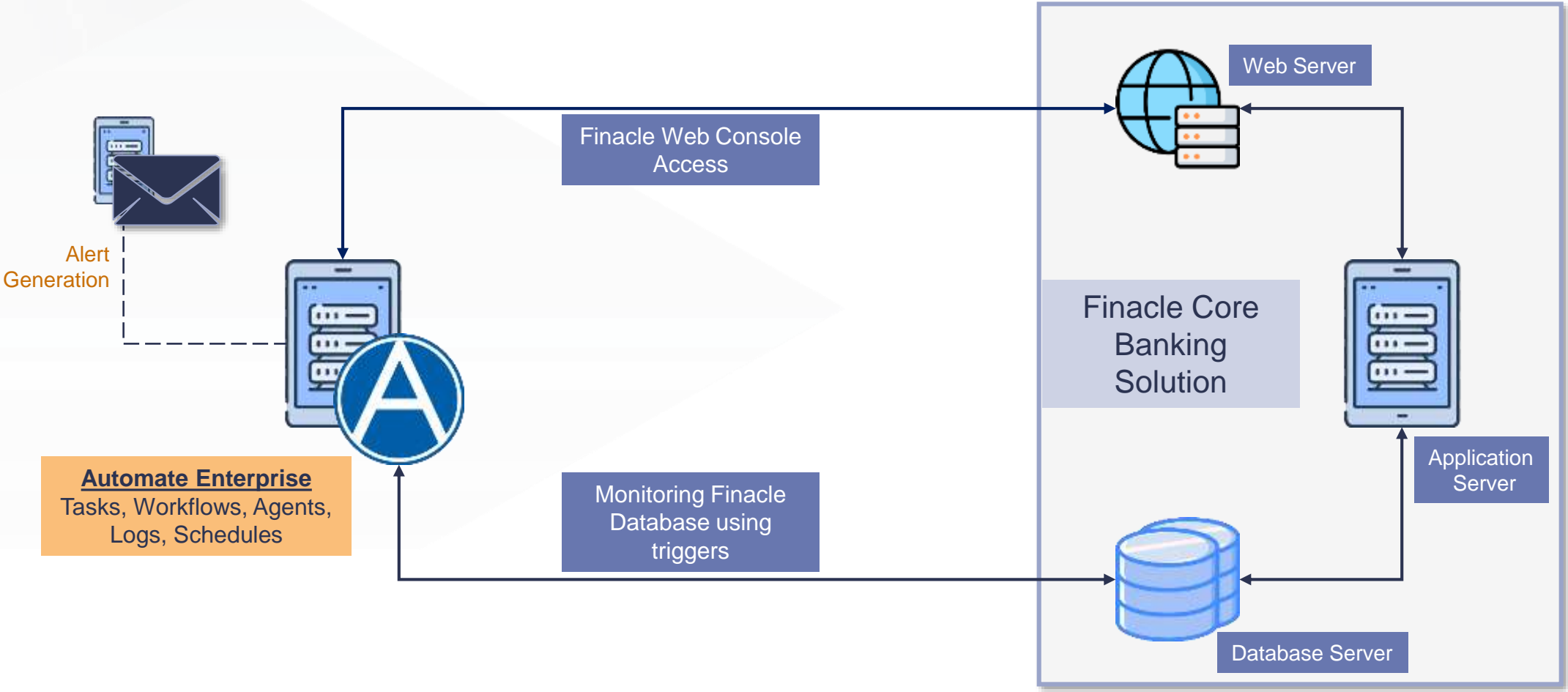
Run Batch 1

Run Batch 2

Run Batch 3

⋮⋮ HSCOLCOP batch  
⋮⋮ HSCOLD batch

# Solution Deployment



# Server Requirements

Below are the minimal server requirements to implement the solution.

## Hardware

Processor: 3 GHz, multi-core 32-bit or 64-bit processor (or higher)

Memory: 8 GB RAM (or higher)

Hard Drive: 50+ GB (Recommended)

Display: 1280x1024 resolution, 32 MB video RAM (or higher)

## Operating System

Windows Server 2012 R2

## Additional Requirement

- .Net Framework 4.0 (included with the installer package)
- Microsoft Office (Depends on the Task)
- Windows Installer 4.5 (included with the installer package )
- Database Datastore (Oracle 10g or higher, MySQL 5.0 or higher, SQL Server 2005 or higher)(SQL Server Express 2008 R2 included with the installer package)

# Benefits

- One Click Operation with zero manual effort.
- Processing system time reduced from 4hrs to average of 200mins.



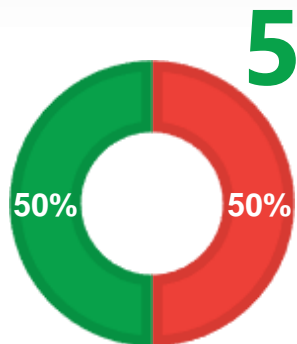
## < 5% Errors percentage

- Since the business rule is defined and human intervention is reduced, the chances of an error is very sleek.
- Automation is a great way to reduce the time and effort spent on routine, frequent and repetitive tasks in very efficient way.



## Manual Intervention Required in Ideal Scenario

- Manual intervention is only required if there is there any exception which automation system will be sending an alert.
- One can control the Automate system between batches by using keyboard shortcuts (if there is any update that has to be installed between batches or any other scenarios).



## 50% Decrease in Operation Costs


- Reduces costs in the areas of hiring staff, training employees.
- Number of employees required to monitor the batch is reduced.


## Other high level advantages

- Continuous monitoring is not required as the tool has alert mechanism which sends notifications to required party.
- **Improved Efficiency:** Automation processes business operations more efficiently.
- **Increased Productivity:** Automation eliminates the tedious, repetitive, and cumbersome tasks such as running batch processes manually etc.



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- Think & Care about Customer's Investment
- Predictable Delivery Every Time since First Time
- Passionate about Desired Outcome