SingHealth Robotic Process Automation (RPA) for Billing and Claims Processing

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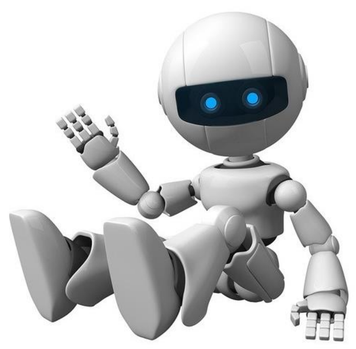
SingHealth
Defining Tomorrow's Medicine



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Background

Like other industries, the healthcare industry is also moving towards digitization to mimic the back-office tasks of human workers. Currently, Business Office users perform various repetitive and manual activities for billing and claims processing. To use Robotic Process Automation (RPA) to increase productivity and to eliminate errors and repetitive manual process that are time-consuming and tedious.

Methodology

This is a cluster initiative led by SingHealth Institutions Business Office, leveraging on enterprise RPA solution (Blue Prism) for billing and claims processing to increase productivity and to eliminate errors and repetitive manual process that are time-consuming and tedious. Pre-set validations and logics are built into the RPA solutions to ensure accurate processing as it covers a wide spectrum of billings and claims scenarios. Users are alerted through email and/or reports of failed transactions not processed by the bot, for manual interventions.

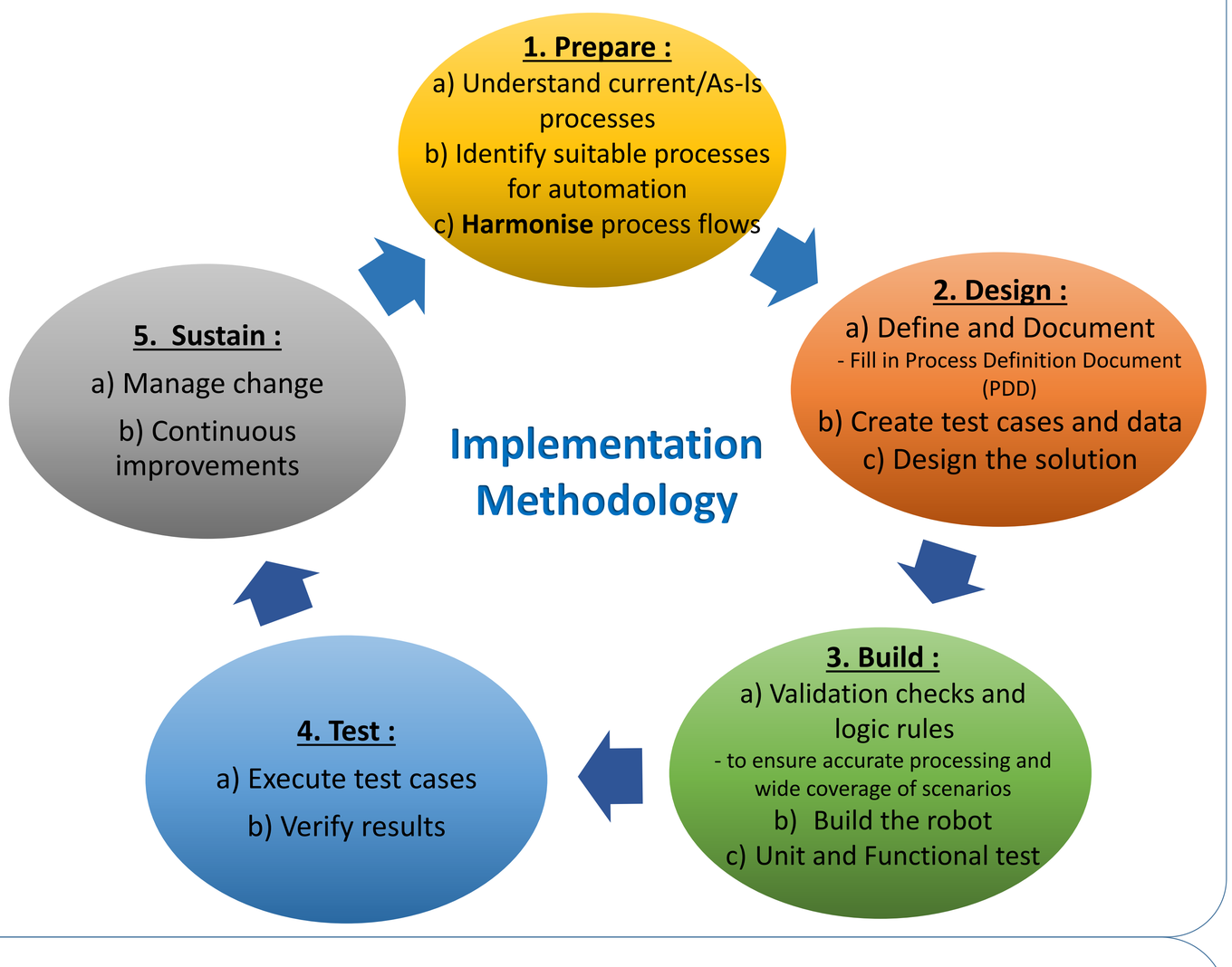
3 processes identified for RPA:

Apr 2021
- **NTUC Payment Posting** (SGH, CGH, SKH and KKH)
  – Automate posting of payments from NTUC Income into SAP billing system.

Apr 2022
- **MediSave Claims Resubmission** (SGH, CGH, SKH, KKH, NHCS, OCH, SKCH)
  – Resubmission of inpatient and day surgery cases for MediSave claims due to bill adjustments.

Apr 2022
- **MediSave Maternity Package (MMP) Claims Submission** (SGH and KKH)
  - Transferring of antenatal bills to delivery cases for MediSave claims under MMP

Involving 4 systems -> MS Outlook, MS Excel, SAP-ISH and OAS.



Result

4,300 man-hours saved per year with breakeven years in less than 2 years

Optimizing headcount vis-a-vis workload expansion by diverting critical resources towards value-adding activities

- Increase speed of completing cumbersome and tedious tasks
- Increase productivity and operational efficiency
- Increase staff satisfaction and promoting Joy@Work.

- Reduce risk of data entry errors
- Decrease overhead cost

Key Learnings

4 ways to successful RPA

1. Proper process identification

– **Start small**, gain momentum
– Identify Simple-Medium repetitive high-volume processes

2. Digitized format

– Information must be converted into **structured electronic data** format as BOT cannot sight hardcopies

3. Harmonized Processes

– Variations increase complexity and affect BOT performance

4. BOT is like human

– **Learns** and acquires knowledge base to handle exceptions (eg. data format "99" means 1999 or 2099 ?)
– "Trains" with exposure to extensive test data and scenarios

Conclusion

- Due to its **non-invasive integration** into the existing system landscape, Robotic Process Automation (RPA) can be **easily introduced** for processes to be **automated quickly.**
- It has the ability to minimize/eliminate errors thus increasing productivity and improving efficiency.
- RPA is one **highly adaptable technology for process automation**. Its scalability and reliability can be further leveraged on to enable a seamless, highly agile and cost efficient operating environment.