Project Title

EPIC-MAP – **E**xcel based **P**roductivity & **I**mproved **C**ybersecurity **M**acro **A**utomation **P**rogram

Project Lead and Members

- Calvin Lee Kang Rui
- John Teo Cheng Su

Organisation(s) Involved

SingHealth HQ

Healthcare Family Group(s) Involved in this Project

Healthcare Administration

Applicable Specialty or Discipline

Strategic Human Resource: Policy & Planning

Project Period

Start date: Not available

Completed date: Not available

Aim(s)

To improve productivity by at least 100%. To handle the increase in workload, we had to improve our productive in our workplace. With this in mind, we brainstormed with different departments and teams to identify our common tasks and current work processes which were inefficient.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Additional Information

Singapore Healthcare Management (SHM) Congress 2023 – 2nd Prize (Human Resource category)

Project Category

Care & Process Redesign

Productivity, Time Saving, Quality Improvement, Workflow Redesign

Keywords

Excel Macro Script
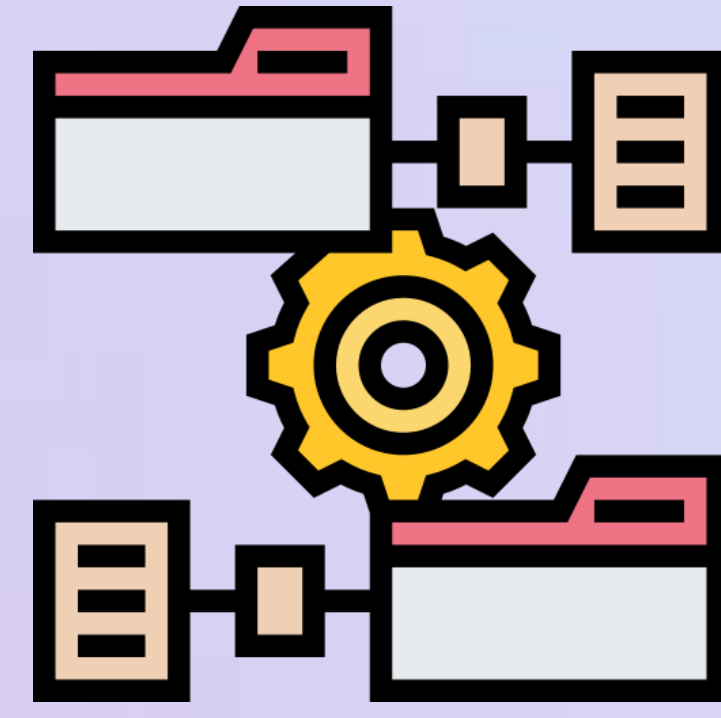
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EPIC-MAP

Singapore Healthcare Management 2023

Excel-based Productivity & Improved Cybersecurity—Macro Automation Program

Calvin Lee Kang Rui, SHHQ – Strategic HR (P&P)
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SingHealth

Introduction: During COVID-19 pandemic, many departments have **experienced an increase in workload and data reporting to several stakeholders.** This resulted large number of sensitive files and documentations are being prepared and circulated mostly via Excel to stakeholders, including those outside of the organization, on a consistent basis which may **require long hours to complete.**

Objective: To handle the increase in workload, we had to improve our productive in our workplace. With this in mind, we brainstormed with different departments and teams to identify our common tasks and current work processes which were inefficient. **Our goal is to improve productivity by at least 100%.**
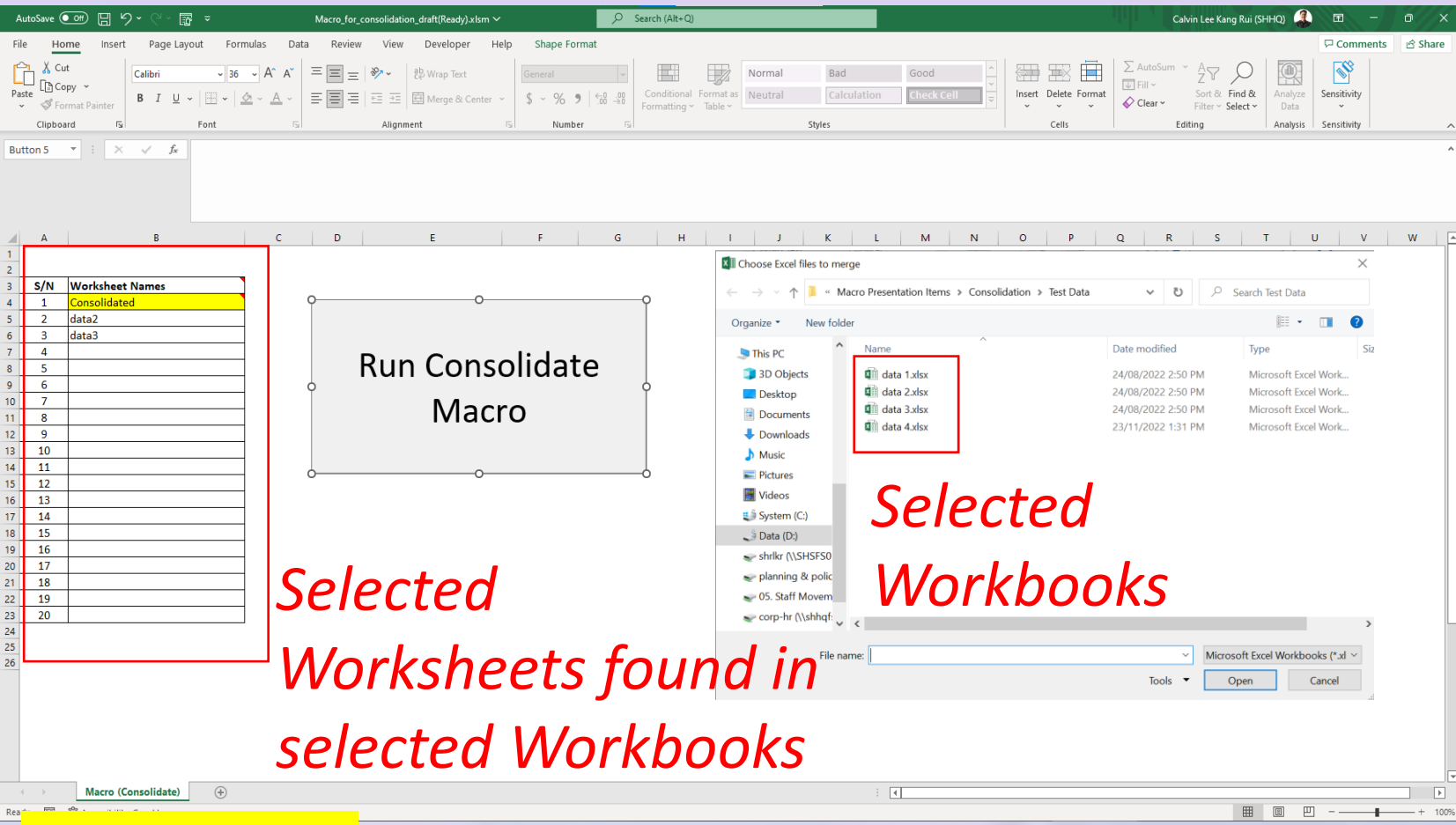
Methodology: We **identified 3 commonly repeated tasks** that were done when preparing our documentations:
1. Manually Copying & Pasting selected data from institutions' reports to consolidate them.
2. Manually segregating information from a large data source into individual documents for respective stakeholders.
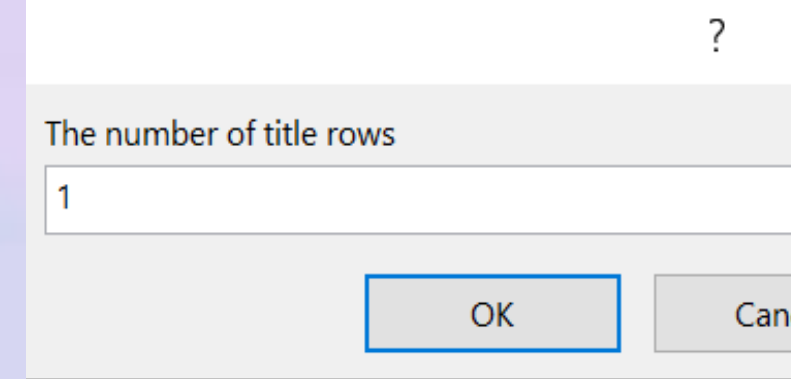3. Manually creating passwords to secure files and documents that have sensitive information.

Hence, we explored on **solutions using technology** and **created 3 Macro scripts** to tackle the above issues!

Showcase Example: (Task 1 – Consolidate Macro)

Selected Worksheets found in selected Workbooks

Selected Workbooks

1. Run **Consolidate Macro**, it will merge selected worksheets based on a name list, from selected workbook, and append data on selected worksheets into a "Consolidated" worksheet.

2. Afterwards key in the number of 'header' rows in your data sheets.

The number of title rows — 1 — OK Cancel

3. Output worksheet **'Consolidated'** will be created and data from selected files will be merged into this sheet, with their respective headers.

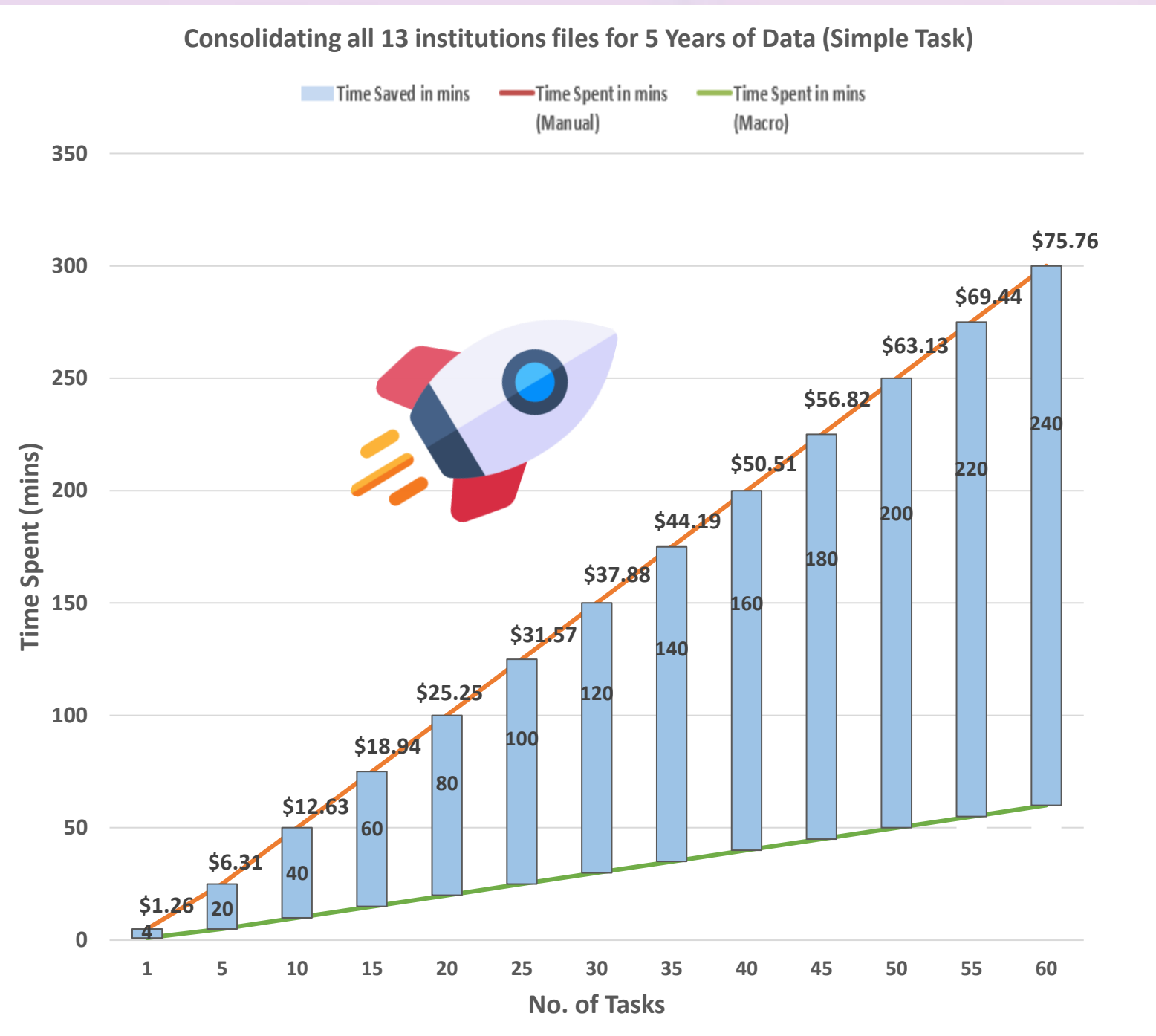| Name	Title	Header 1	Header 2	Header 3	Header 4	Header 5	Header 6	Header 7	Header 8
SGH	Col 1	1	2	3	4	5	6	7	8
SGH	Col 2	1	2	3	4	5	6	7	8
SGH	Col 3	1	2	3	4	5	6	7	8
SGH	Col 4	1	2	3	4	5	6	7	8
SGH	Col 5	1	2	3	4	5	6	7	8

Results:

Given scenario: An Executive is required to **prepare a consolidated document** with specific data inputs, that were submitted on a **monthly** basis, form the whole cluster (**13** institutions) for the past **5** years to perform some analysis. **(Approx. Total of 60 simple tasks)**

(Copy & Pasting data for 1 month worth of Clusters' data ="1 Simple Task")

Hypothetical Executive pay:	
Per Month	$ 3,500.00
Per Day	$ 159.09
Per Hour	$ 18.94

Hence, we can see that **exponentially more $$$ can be saved**, when larger number of tasks are to be completed!

Consolidating all 13 institutions files for 5 Years of Data (Simple Task)

No. of Task	Time Spent in mins (Manual)	Time Spent in mins (Macro)	Time Saved in mins	Total Savings in Cash
1	5	1	4	$ 1.26
5	25	5	20	$ 6.31
10	50	10	40	$ 12.63
.	.	.	.	.
.	.	.	.	.
60	**300**	**60**	**240**	**$ 75.76**

Consolidating all 13 institutions files for 5 Years of Data (Simple Task)

Summary & Conclusion:

Christopher data reporting job occasionally needs him to perform data entries.
Frequently pressing Ctrl-C & V is hurting my wrist...

John is a master when it comes to working efficiently.
Want to work more efficiently? Allow me to assist you.

Step 1. Identify tasks to improve efficiency on.
I find myself frequently consolidating and splitting data from Excel files.

Step 2. Decide on how you should solve the issues.
I have lots of options for completing my tasks, but I want to make one that is easily usable and sharable with my colleagues.
Why don't we explore our options together.

Step 3. Decide on our needs and tools to use
I need a macro that helps me perform data entries & segregating my data by specifics.
Why don't we write some VBA scripts to automate those tasks.

Step 4. Create the Macro scripts templates
Sub Macro ( ) Dim filePath As Variant ......

Step 5. Share with colleagues to help test the scripts, and collect their feedback
I think these are some areas we can improve on...

Step 6. Finalize the Macro to be distributed to everyone!
Thanks to the Macros we are able to end work on time!