

Curriculum Framework

Continuous Secure Automation Lifecycle Framework

It is a *continuous* multi-party conversion about a capable *idea*

to translate it into clear requirements,

so as to create a concrete implementation plan,

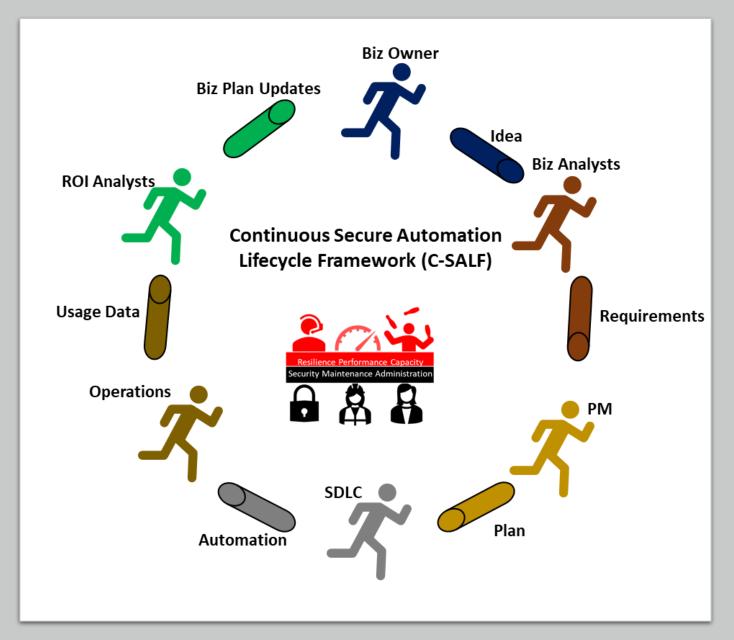
resulting in a comprehensive and complete *automation* development

which is commissioned and supported to **operate** well (resilient, fast, high capacity, secured, easier to maintain, and effective administration_

is monitored to be delivering commercial or civic gain

and,

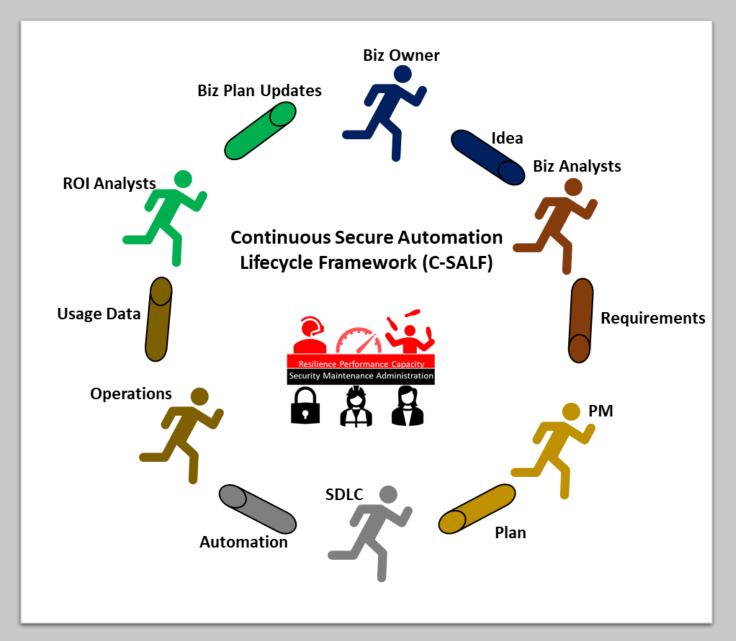
the process repeats



How did I learn

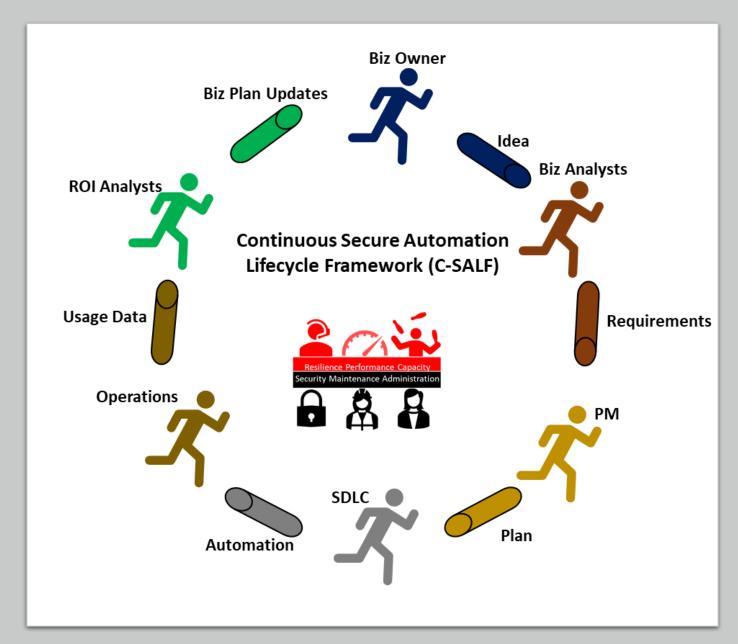
Delivered

- Idea captured in Stanford Impact Business Model Canvas
- 2. Business Requirements Document
- 3. Entity Relationship Diagrams
- 4. User Flow Diagrams
- 5. Wireframe Diagrams
- 6. Secure storage
- 7. Portal App + Mobile App
- 8. Administrative support
- 9. Operations analysis
- 10. Business Intelligence Dashboards
- 11. TBD-Security self assessment
- 12. TBD-Microsoft Planner
- 13. TBD-Azure DevOps



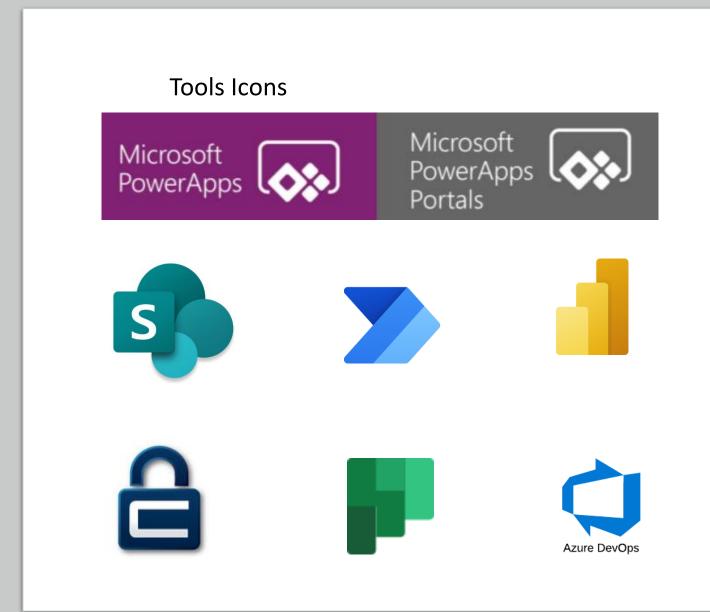
Automation Roles I now understand

- 1. Business Owner
- 2. Business Analyst
- 3. Project Manager
- 4. Architect/Builder/Creator/De veloper/Maker
- 5. Operator/Administrator
- 6. Value Analyst
- 7. Security
 Assessor/Administrator



Tools I used

- 1. Microsoft Sway
- 2. Visio
- 3. Microsoft Planner
- 4. SharePoint
- 5. Azure DevOps
- 6. PowerPlatform
 - PowerPortal, Power Apps Studio, SharePoint, Power Automate, Power BI
- 7. DHS Cybersecurity Evaluation Tool (CSET)



Additional tools I learnt

- 1. Power AI Builder
- 2. Power Virtual Agent
- 3. Dataverse

Tools Icons







Ideation – Stanford Impact Business Model Canvas

- 1. What: A simple block template to think through Problem, Mission, Partners, Activities, Resources, Value proposition, Stakeholders types and relationships, Distribution channels, Cost, Revenue, Impact
- 2. Why: This one pager helps guide the development of the BRD
- 3. When: First deliverable in the process
- 4. How: Use templates such as the Stanford 12 block template
- 5. Ref: https://stanford.edu/dept/gsb-ds/Inkling/The_Impact_BMC/index.ht

- Which detail to include
- Where is it: Images of your Wireframe and Link to PDF of your wireframe doc

Business Requirements Document

- 1. What: BRD guides what needs to be developed
- 2. Why: It scopes the purpose of a development project
- 3. When: It is the very first deliverables
- 4. How: By interviewing the Business Owner and competitor analysis
- 5. Ref: https://www.lucidchart.com/pages /templates/businessanalysis/lucidchart-businessrequirements-document-example

- Which detail to include: Top level Table of contents of the BRD
- Where is it: Images of your BRD and Link to PDF of your BRD

Entity Relationship Diagram

- 1. What: BRD guides what needs to be developed
- 2. Why: To document what data we need for each entity, how entities relate to each other, identify roles entities play, identify security requirements for the roles.........
- 3. When: It is one of the very first development deliverables along with User Flows
- 4. How: By interviewing the Business Owner and Analysts and asking them to play various Solution's stakeholder roles and articulating what needs to happen in usage of the solution, and identifying the data elements needed for these actions to occur
- 5. Ref:

- Which detail to include: List your Entities
- Where is it: Image of your ERD and/or link to PDF of your ERD

User Flow Diagram

- 1. What: Clearly shows the user process experiences that need to be developed
- 2. Why: User experience is the key to generating commercial or civic value, it is the main guide for the developers and user acceptance tester
- 3. When: It is the main intuitive deliverable that the Business Owner has to approve. It is one of the very first development deliverables along with ERD.
- 4. How: By interviewing the Business Owner and Analysts and asking them to play various Solution's stakeholder roles and articulating what needs to happen in usage of the solution, and identifying the data elements needed for these actions to occur
- 5. Ref:

- Which detail to include: List your User Flow names
- Where is it: Images of your User Flows or Link to PDF of your User Flows

Wireframe Diagram

- 1. Clearly shows the user's graphic interface experiences that need to be developed
- 2. Why: User experience is the key to generating commercial or civic value, it is the main guide for the developers and user acceptance tester
- 3. When: It is the main visual deliverable that the Business Owner has to approve. It is one of the very first user acceptance deliverables along with ERD.
- 4. How: By interviewing the Business Owner and Analysts and asking them to play various Solution's stakeholder roles and articulating what needs to happen in usage of the solution, and identifying the data elements needed for these actions to occur
- 5. Ref:

- Which detail to include
- Where is it: Images of your Wireframe and Link to PDF of your wireframe doc

Secure storage

- 1. What: Design of what will be stored where and how it will be accessed
- 2. Why: Storge design impacts performance, administration, security, etc. So careful thinking is needed.
- 3. When: As soon as user flows are done but before programming starts
- 4. How: If the ERD is written as Entities or Tables, it can be used to create data structures
- 5. Ref: https://dataengineering.wiki/Index

- 1. Which detail to include:
 Include a list of all your
 SharePoint Lists. Shows
 how they map to ERD. If
 there are deviations
 explain how implementing
 storage helped you think
 about 'data engineering,' as
 well as security more
 specifically access control
- Where is it: Images of your Wireframe and Link to PDF of your wireframe doc

Automation Portal App / Mobile App

- 1. What: You know this lost more than I do ©
- 2. Why:
- 3. When:
- 4. How:
- 5. Ref:

- 1. Which detail to include
- Where is it: Images of your Wireframe and Link to PDF of your wireframe doc

Administrative Support

- 1. What: How to add users to O365, assign licenses, assign privileges to workloads such as SharePoint lists and Power Automate Flows, access and read logs
- 2. Why: Privilege assignments is important for automations to work for various users, careful assignment of privileges is important to keep data confidential
- 3. When: All through the lifecycle
- 4. How: Using O35 Admin consoles, over 10 consoles
- 5. Ref:

- Which detail to include: All the services that you administered
- Where is it: Best is if you create a short two or three pager on administrative tasks you did and make it into a small SOP. And then add Images OR Link to A PDF

Operations Analysis

- 1. What: Review usage logs of the application, review issues logs
- 2. Why: Detect saturation of resources (such as are we running out of pre-created accounts created for speed, is there an abuse of the application)
- 3. When: All through the lifecycle
- 4. How: Microsoft 365 Defender console
- 5. Ref: https://security.microsoft.com/homepage

- Which detail to include: You may have reviewed SharePoint list entry timestamps and Flow logs at least, you also have app specific logs to talk about here
- 2. Where is it: Images of interesting log entries if any

Business Intelligence Dashboards

- 1. What: Measures and Metrics
- 2. Why: Measures are needed to determine which data should be analyzed. Metrics are needed to make decisions to make the service better, create something new, or to retire an existing service.
- 3. When: Perhaps quarterly after the first production release of the application.
- 4. How: Power BI
- 5. Ref: https://hbr.org/2012/10/how-to-pick-the-right-metrics

- 1. Which detail to include: Specify which specific measures you looked and state which ones are sufficient to say the service is being used well. For example you can say that 30 new users registered in a day and it is above the 25 mark to start making profits. Here think as the Business Owner first.
- 2. Where is it: Images of your Power BI dashboards. Bette if you build one dashboard by hand or at least modify default dashboards so things of relevance to you are easier to see. Then include links to images of PDF of your dashboard.

Security Self Assessment

- 1. What: Solution security posture report.
- 2. Why: Customers expect that their Privacy is maintained, and Law enforcement expects that one company's resources are not sed to attack other
- 3. When: Right after Ideation. The BRD identifies relevant laws and regulations, ERD identified access controls, and so on.
- 4. How: Using NIST 800-53 framework
- 5. Ref: https://www.cisa.gov/uscert/ics/Do wnloading-and-Installing-CSET

- Which detail to include:
 Access Controls assessment section, and your own lessons learnt in implementing Passwords
- 2. Where is it: Images of your CSET PDF report

Accessing my work

<Instructions to access>
 (make sure they are working before every presentation and also test every so often)

- 1. Link to your Page Or App(s)
- Colorful attractive image of your app

APPENDIX 1

Canvas/Model Apps vs PowerPortal Apps

NEED TO SPELL CHECK AND CREATE A LOCAL TABLE

