

WELCOME / BIENVENUE CPPS'25



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Vancouver, British Columbia

March 21, 22 2025

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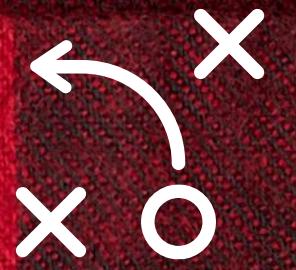
Carl Cookson



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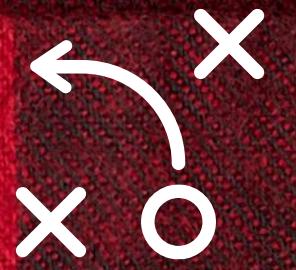
Daias Jose



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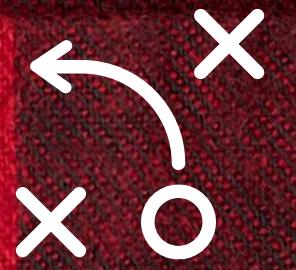
Mats Necker



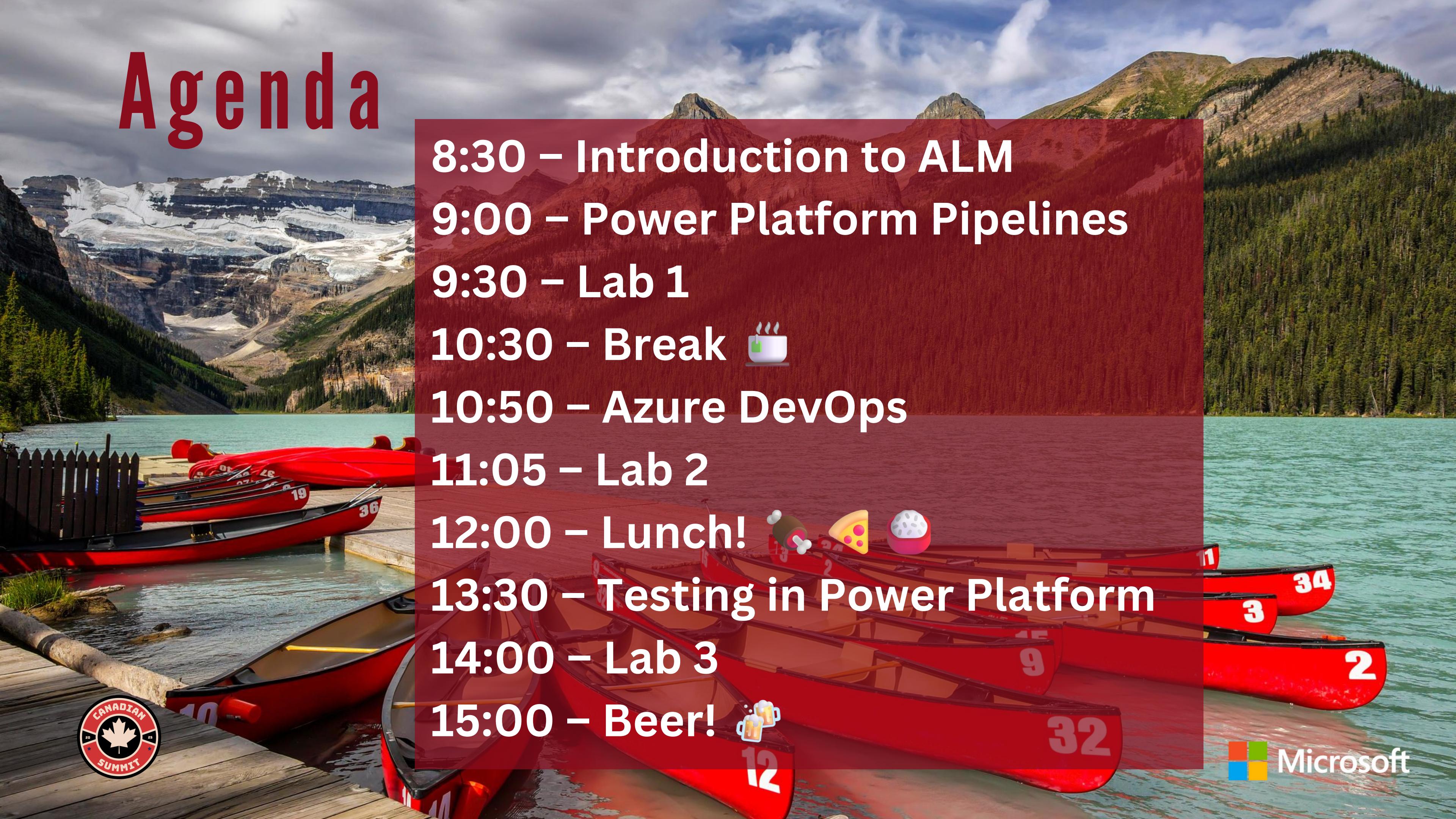
[linkedin.com/in/matsnecker](https://www.linkedin.com/in/matsnecker)



nckr.de



Agenda

- 
- 8:30 – Introduction to ALM
- 9:00 – Power Platform Pipelines
- 9:30 – Lab 1
- 10:30 – Break ☕
- 10:50 – Azure DevOps
- 11:05 – Lab 2
- 12:00 – Lunch! 🍕
- 13:30 – Testing in Power Platform
- 14:00 – Lab 3
- 15:00 – Beer! 🍺



What is ALM?

What is ALM?

Application Lifecycle Management (ALM) is the **end-to-end management of applications**, covering governance, development, and maintenance. It streamlines software delivery through **standardized tools, automation, and collaboration** between development, testing, and operations teams.

Key Areas of ALM

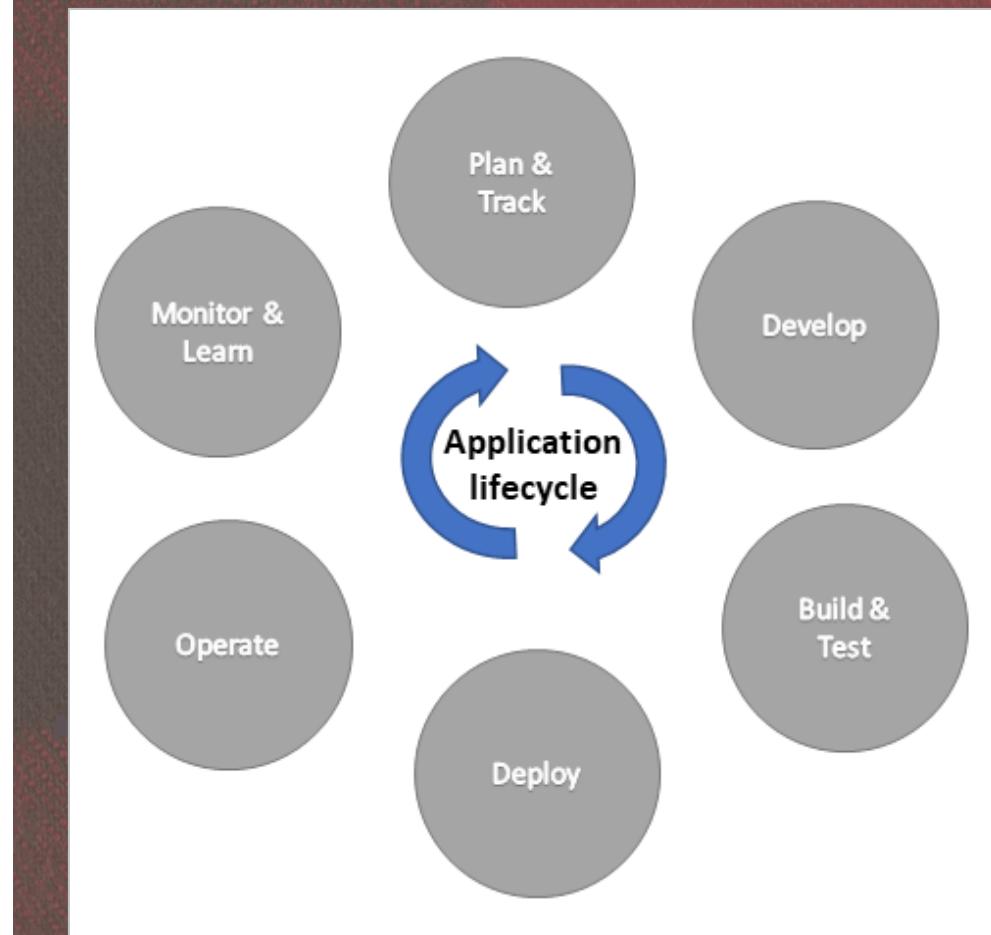
- ◆ **Governance** – Manages requirements, resources, security, access, audits, deployment control, and rollback.
- ◆ **Application Development** – Involves problem identification, planning, design, development, testing, and continuous improvements.
- ◆ **Maintenance** – Covers app deployment and managing dependencies for stability.



Application Lifecycle Stages

ALM Lifecycle Stages

- 1 Plan & Track** – Define requirements & roadmap.
- 2 Develop** – Build and enhance the application.
- 3 Build & Test** – Ensure functionality and quality.
- 4 Deploy** – Release and integrate with environments.
- 5 Operate** – Manage performance and availability.
- 6 Monitor & Learn** – Track issues and optimize for improvement.



Power Platform ALM Fundamentals

- ◆ **Environments** – Secure spaces to store, manage, and share apps, data, and processes.
- ◆ **Solutions** – Packages used to transport and manage apps and components across environments.
 - Unmanaged Solutions – Used in development, allowing modifications.
 - Managed Solutions – Used in test, UAT, and production, cannot be modified directly, ensuring stability.
- ◆ **Source Control** – Tracks and stores changes in a single source of truth, enabling collaboration, versioning, and rollback.
- ◆ **Automation** – Enhances ALM efficiency with validation, export, packaging, and environment management tasks.
- ◆ **CI/CD (Continuous Integration & Deployment)** – Uses GitHub & Azure DevOps to automate solution deployment and streamline development.



Power Platform Pipelines

What are Power Platform Pipelines?

It's a built-in **ALM automation & CI/CD tool** from Microsoft for Power Platform & Dynamics 365 apps, to make deployment easier for **makers, admins, and developers**.

Key Benefits:

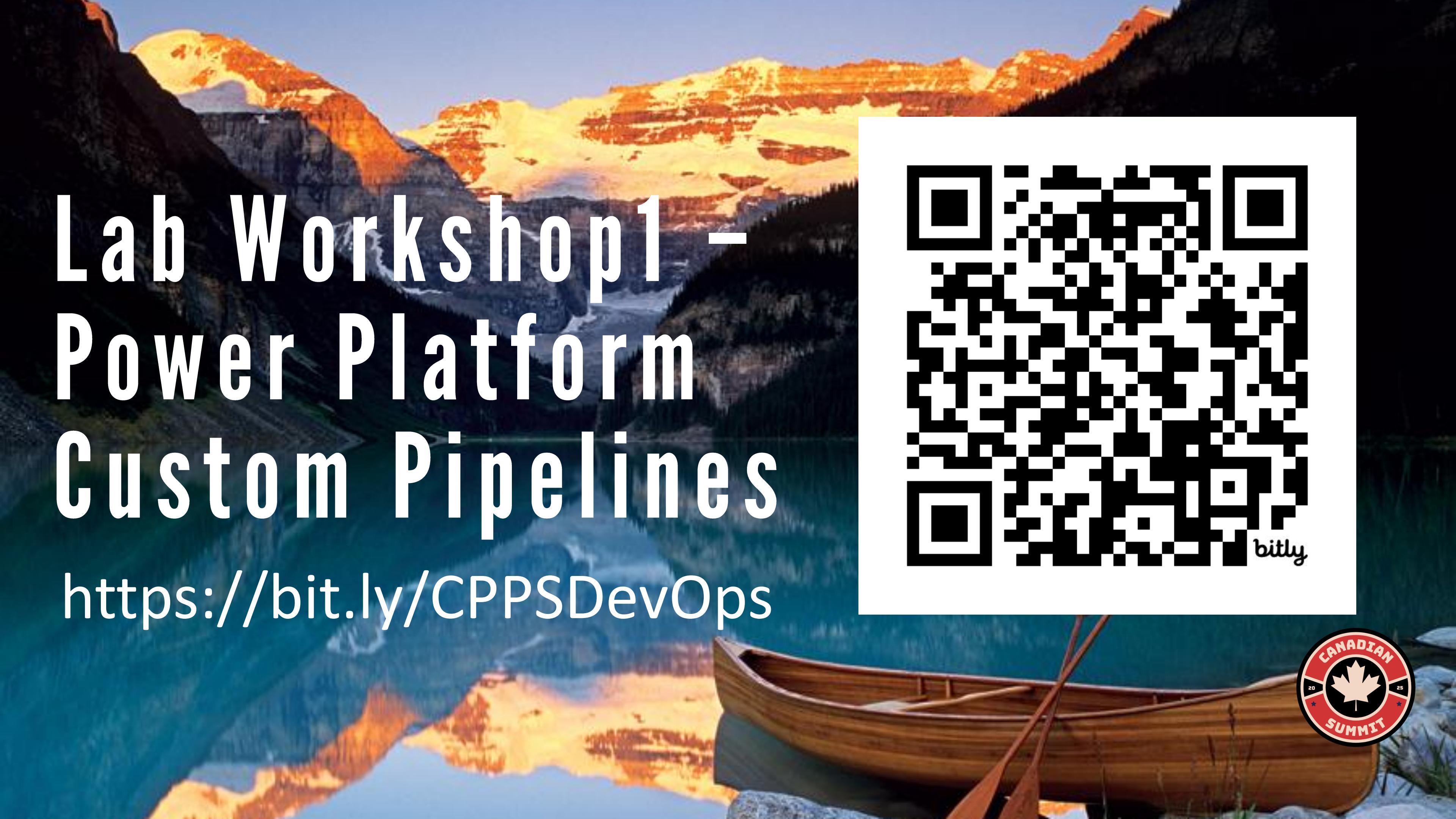
-  **Easy Setup** – Configure automated pipelines in minutes.
-  **Intuitive Deployment** – Makers can deploy solutions with a user-friendly experience.
-  **Extensibility** – Pro developers can extend pipelines using **Power Platform CLI**.
-  **Centralized Governance** – Admins can manage deployments with auditing, security & compliance controls.



Personal Pipelines vs. Custom Pipelines

Feature	Personal Pipelines	Custom Pipelines
Purpose	Simple, quick ALM automation for individual makers.	Advanced, scalable deployment tailored for org-wide use.
Setup	Pre-configured, easy to use.	Requires admin configuration and customization.
Governance	Limited governance, ideal for personal or small-scale projects.	Centralized governance with security controls.
Extensibility	Minimal customization options.	Fully extendable using Power Platform CLI & Power Automate.
Use Case	Individual makers deploying solutions in a low-risk environment.	Organizations needing structured, compliant ALM for team collaboration.
When to choose	Choose Personal Pipelines for quick, independent deployments.	Choose Custom Pipelines for enterprise-scale, governed ALM processes.



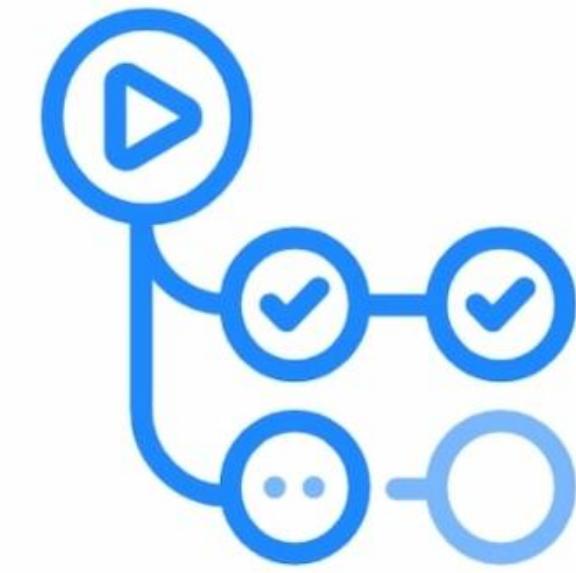


Lab Workshop1 - Power Platform Custom Pipelines

<https://bit.ly/CPPSDevOps>



Custom Pipelines



GitHub Actions

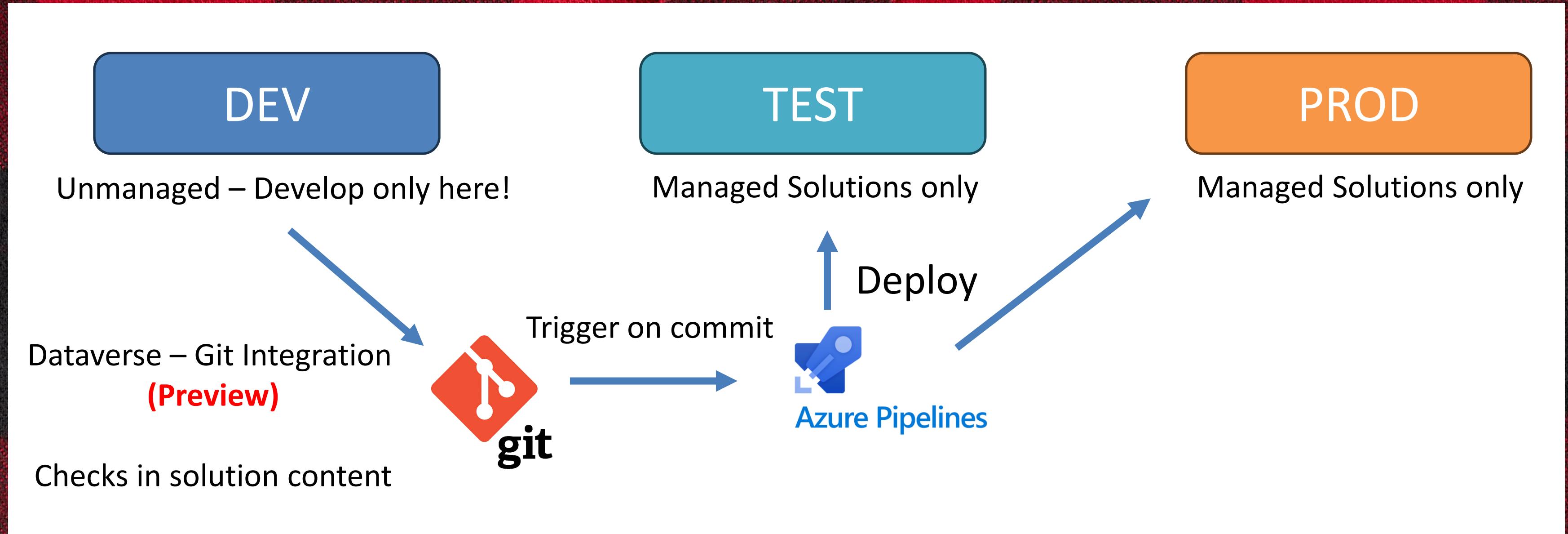


Why Custom?

- More options and flexibility
- Integration with other processes
 - Deployment of artifacts
 - Notifications
 - ..
- Full control over repository
- Works without Managed Env.



What we will build





Lab 2 - Custom Pipelines in Azure DevOps



Why Test?



- Reduced Risk of releases
 - Gives product owners confidence that all is well
- Reduces re-work
 - Fixes are done as soon as possible by those that understand the code
- Raises issues early
 - Know about problems before prod deployment
- Removes human error
 - No long, boring regression test scripts



- High Initial Cost
 - Creating scripts & Pipelines can be time-consuming
- Adds Dev time
 - Devs or Testers need to keep scripts up-to date
- Can lead to Frustration
 - Change can take longer to test than to implement

Types of Tests



Unit Testing

Completed by the developer to ensure their code meets the story



Integration Tests

Point to point testing of interactions with other systems



Performance Tests

ensuring your NFRs are met to load forms or complete operations in a given timeframe



Load Tests

Ensuring your system still works under pressure (seasonal activities)



Regression Testing

Ensure a fix doesn't break some other thing



UI Tests

Part of a regression test pack, a series of steps to complete in your solution



Testing Frameworks

Company	Solution	Dynamics 365		Purchase cost?	Tech skills	Perf. testing	Azure DevOps integration	SaaS option
		Sales, Customer Service, Field Service, Customer Insights	Finance, Supply Chain Management, Project Operations, Commerce					
360Testing Limited	TheTestMart	✓	✓	Yes, per test, custom	No Code, Test Plans	No	Yes	Option
Leapwork	Leapwork Test Automation	✓	✓	Yes, subscription	No Code, UI scripts	No	Yes	Yes
Microsoft	RSAT		✓	Free	No Code	No	Yes	No
Microsoft	Easy Repro	✓		Free	Code First	No	Yes, with added configuration	No
Microsoft	Playwright	✓	✓	Free	Code First	Yes, with added plugin	Yes, with added configuration	No
Selenium	Selenium	✓	✓	Free	Code First	Yes	Yes, with added package	No
Tricentis	Tricentis Tosca	✓	✓	Yes, subscription	No Code, UI scripts	No	Yes	Option
XPLUS SA	Executive Automats 365	✓	✓	Yes, custom	No Code, UI scripts	Yes	Yes	Option

Testing Frameworks

Company	Solution	Dynamics 365		Purchase cost?	Tech skills	Perf. testing	Azure DevOps integration	SaaS option
		Sales, Customer Service, Field Service, Customer Insights	Finance, Supply Chain Management, Project Operations, Commerce					
360Testing Limited	TheTestMart	✓	✓	Yes, per test, custom	No Code, Test Plans	No	Yes	Option
Leapwork	Leapwork Test Automation	✓	✓	Yes, subscription	No Code, UI scripts	No	Yes	Yes
Microsoft	RSAT		✓	Free	No Code	No	Yes	No
Microsoft	Easy Repro	✓		Free	Code First	No	Yes, with added configuration	No
Microsoft	Playwright	✓	✓	Free	Code First	Yes, with added plugin	Yes, with added configuration	No
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What About Test Studio?

The screenshot shows the Power Apps Test Studio interface. The left sidebar displays a navigation tree under 'Tests' with options like '+ New suite', 'Test', and 'Suite'. The main area is titled 'Suite' and contains a sub-section 'Case'. Both sections have input fields for 'Enter a suite description' and 'Enter a case description'. Below these are two nested sections: 'Case' and 'Step'. The 'Case' section has four steps listed:

Order	Step	Screen	Action
1.	Select 'Subtitle1' in row 2 in 'RecordsGallery1'	scrListings	<code>Select('RecordsGallery1', 2, 'Subtit...')</code>
2.	Select 'icoAddNewImage'	scrListings	<code>Select('icoAddNewImage')</code>
3.	Select 'AddMediaButton1'	scrAddImage	<code>Select('AddMediaButton1')</code>
4.	Enter a step description	-	Enter a step action





Lab Workshop 3 - Test Automation

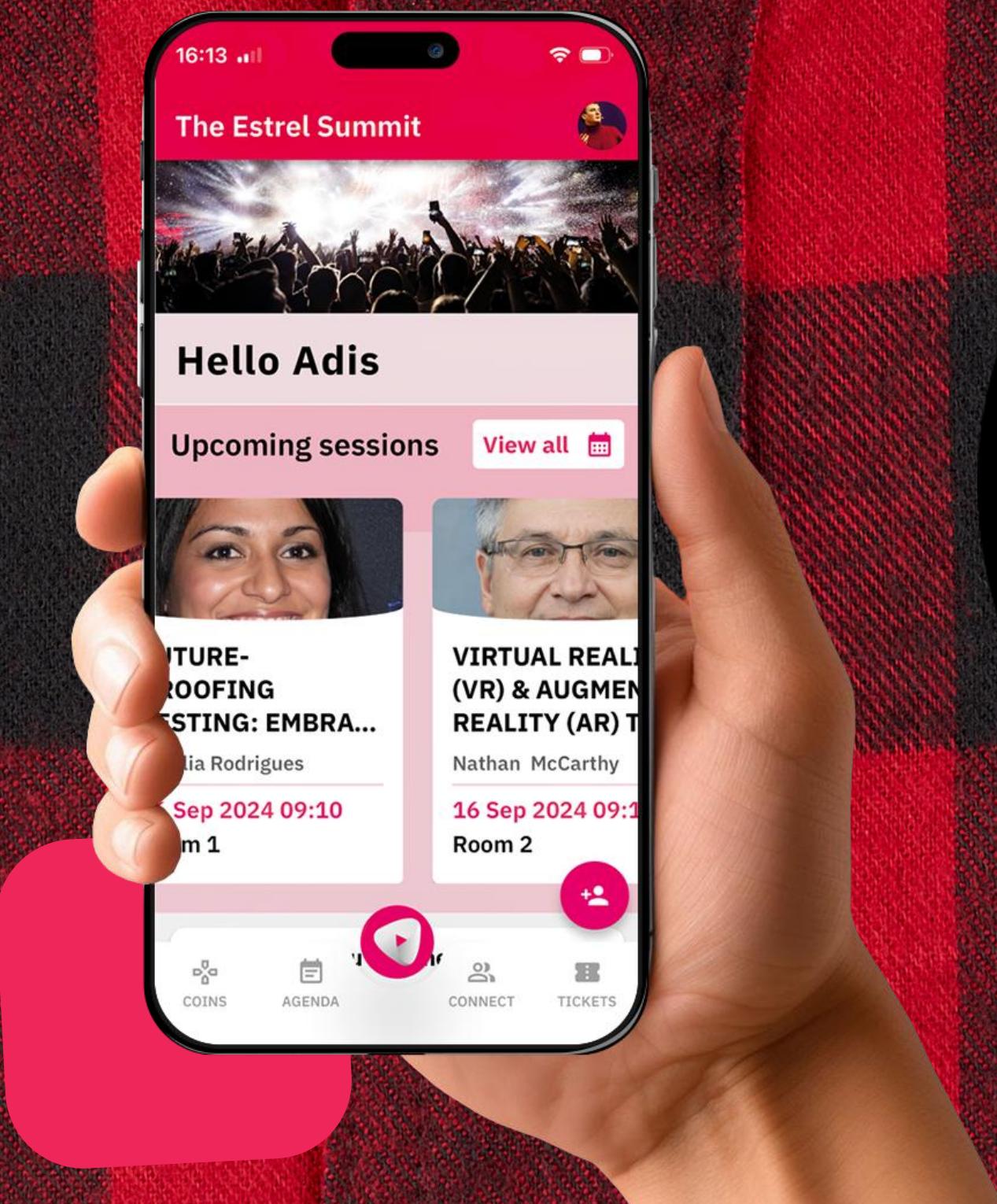


RUN.EVENTS APP

NEWS & UPDATES

AGENDA

SESSION FEEDBACK
** PLEASE FILL THIS OUT!



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Kahil
Consulting

Power Pages Plus

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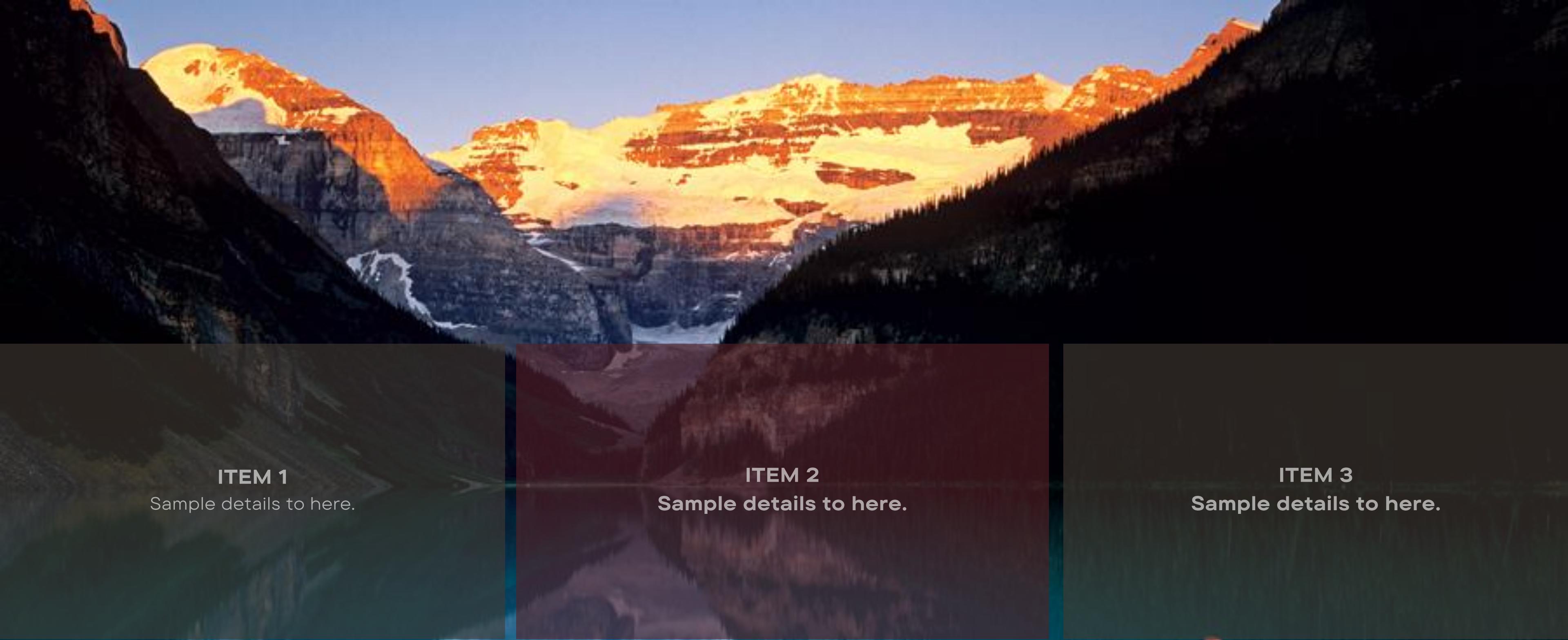
Fort
Vermilion
School Division



Microsoft



THANK YOU



ITEM 1

Sample details to here.

ITEM 2

Sample details to here.

ITEM 3

Sample details to here.

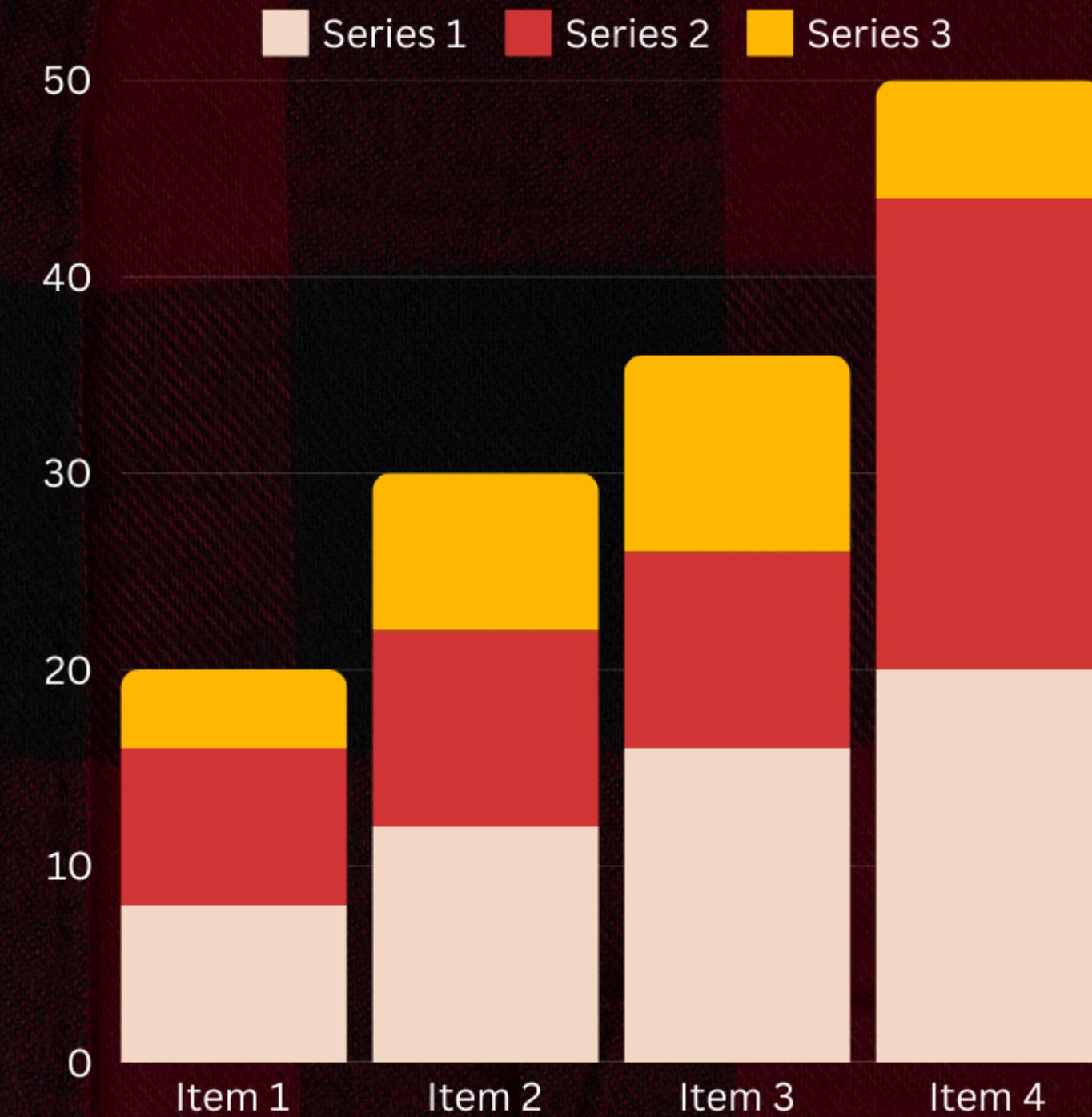
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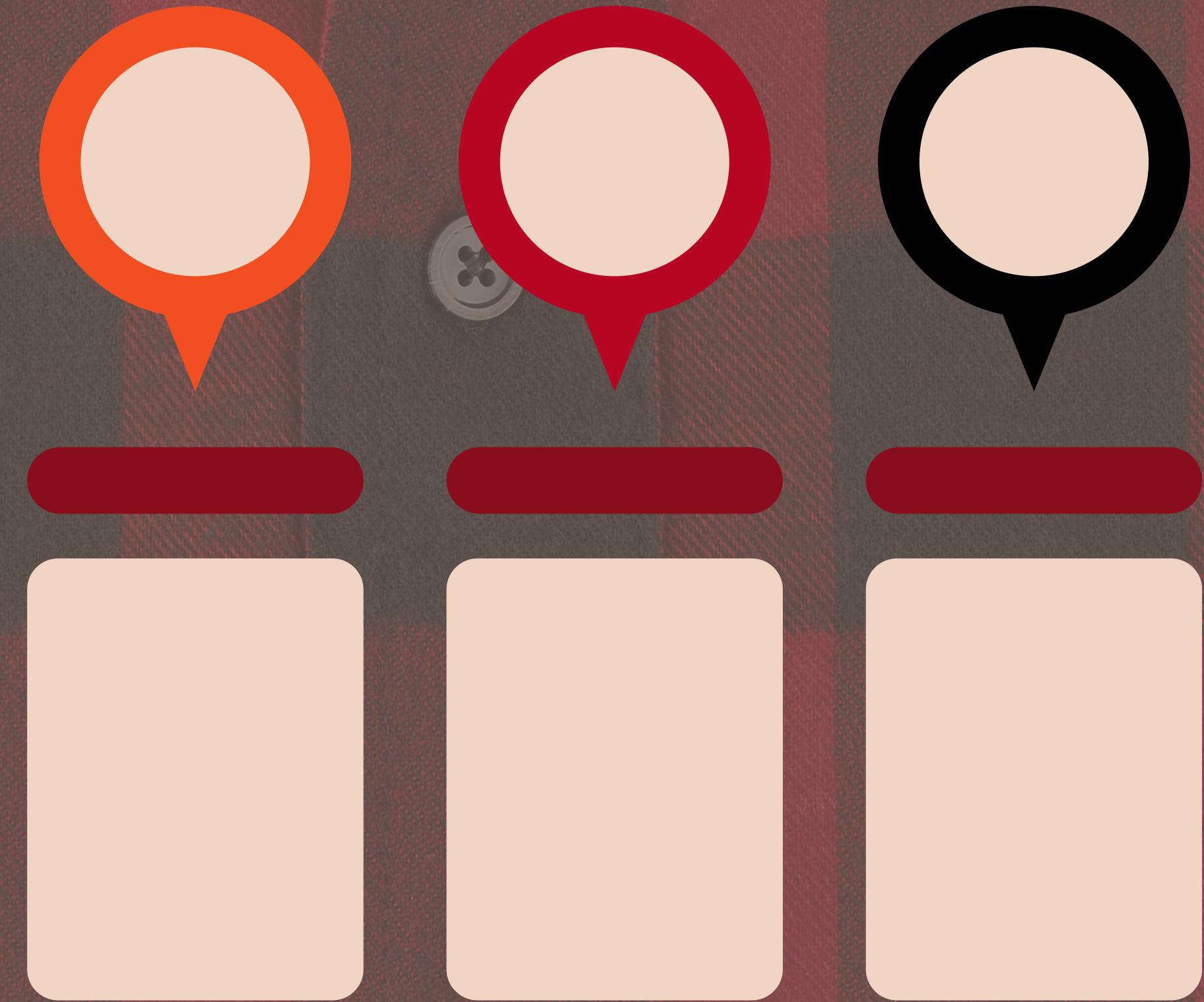
SAMPLE 1

Sample Text:

- Sample 1
- Sample 2
- Sample 3
- Sample 4
- Sample 5
- Sample 6



SAMPLE 2



SAMPLE 3

ITEM 1

ITEM 2

ITEM 3

ITEM 4



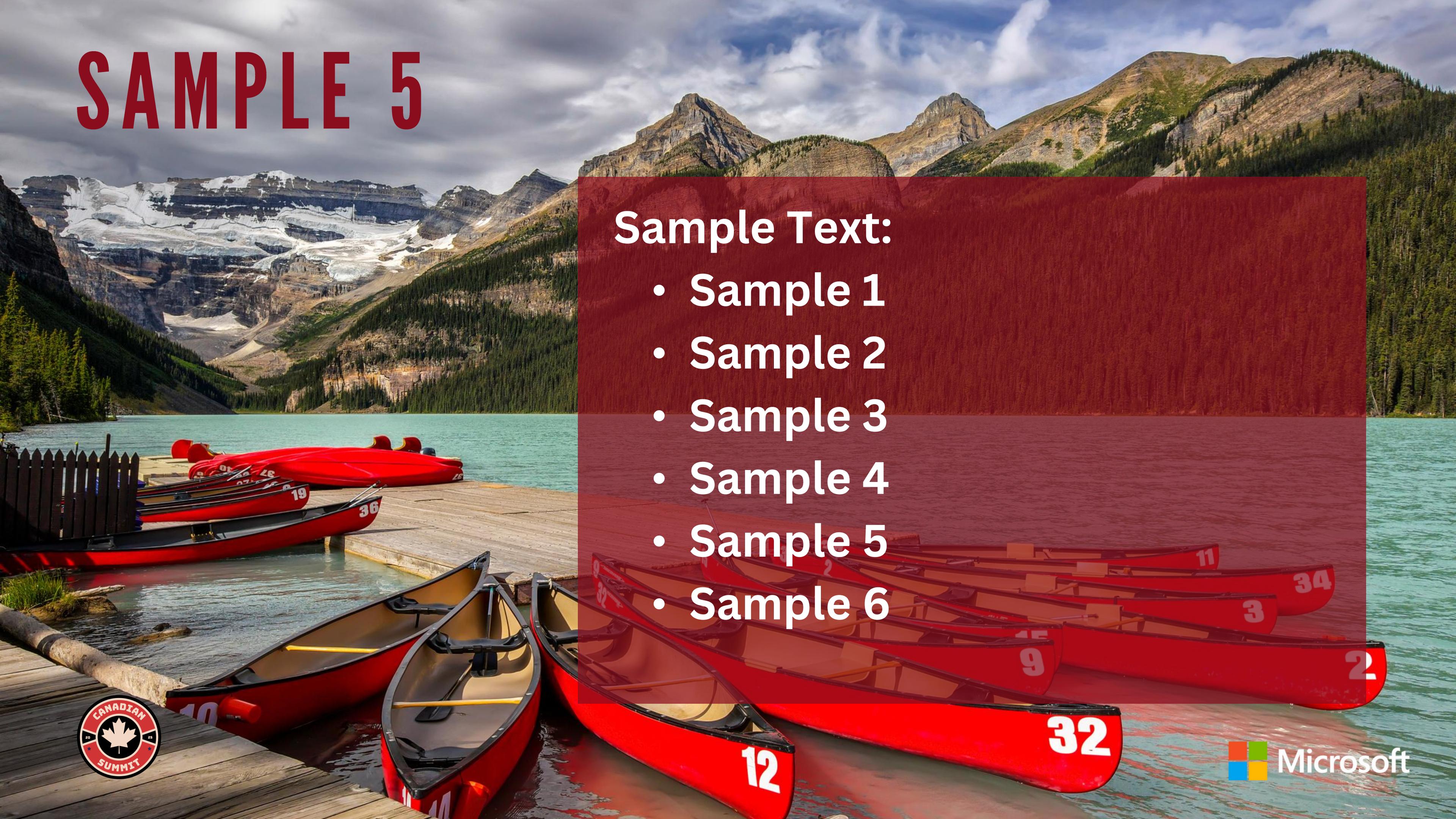
SAMPLE 4

Sample Text:

- Sample 1
- Sample 2
- Sample 3
- Sample 4
- Sample 5
- Sample 6



SAMPLE 5



Sample Text:

- Sample 1
 - Sample 2
 - Sample 3
 - Sample 4
 - Sample 5
 - Sample 6

