

I'm speaking at M365 Community Days NYC

Get started with PowerShell and MS GRAPH API and become a Pro

Fri, 7/26/2024 1:10 pm — Manhattan, New York, United States



Michael Seidl



Ahmed Uzejnović

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Michael Seidl

- **Automation Consultant (4 Years)**
- **PowerShell & Automation Enthusiast**
- **Blog**
 - <https://powershell.works>
- **GitHub**
 - <https://github.com/ujejnovicahmed>
- **LinkedIn/ujejnovicah**



- **Microsoft MVP (since 2015)**
- **Automation Consultant (10+ Years)**
- **Founder, CEO | au2mator**
 - **Self-Service Portal for Microsoft Automation**
- **Blog**
 - www.techguy.at | www.au2mator.com
- **GitHub**
 - [github/seidlm](https://github.com/seidlm) | [github/au2mator](https://github.com/au2mator)
- **LinkedIn/SeidIM**



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Iran

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NOT AUSTRIA

Australia

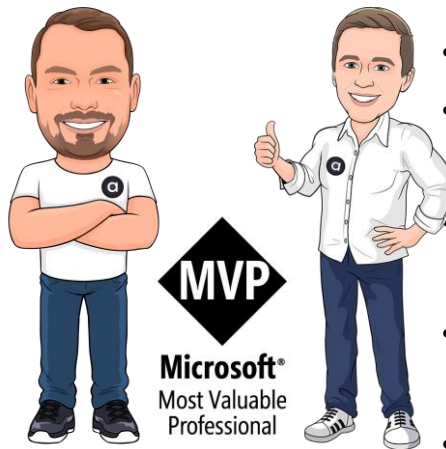


Austria
No kangaroos -
only kuhlimuhs

#weareaustria

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AGENDA

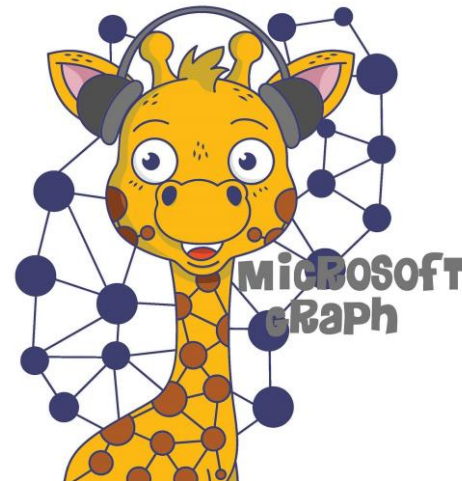
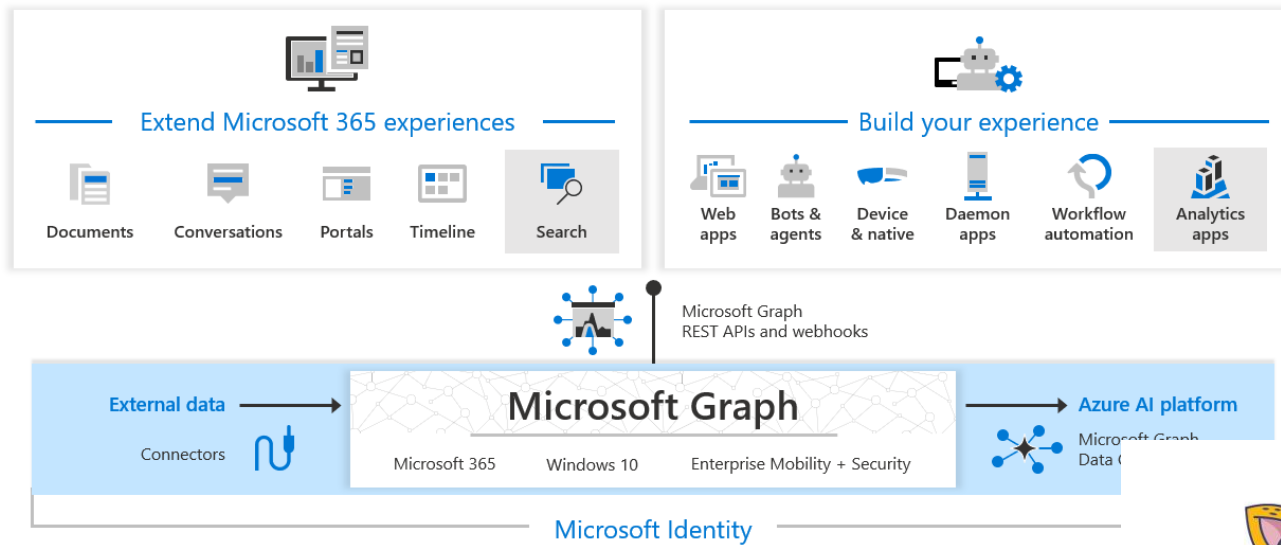
✓ INTRO

- GRAPH API BASICS AND AUTHENTICATION
- FILTER / SEARCH / SELECT
- PAGING
- BATCH
- END

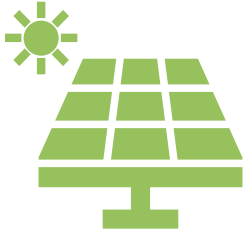


ONE API to the Cloud

Microsoft 365 Platform



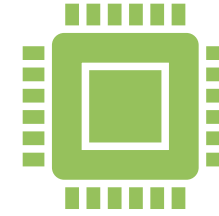
WHY use MS Graph API



No PowerShell Module



OnPrem/Cloud



More Functionality over
PS-Module (delay)



Easy language



Unlimited Platforms



One API to all Cloud
Services (Future)

HOW to use MS Graph API



REST Call, HTTPS, WEB URL



<https://graph.microsoft.com/v1.0/>

Users | Groups | Teams | ToDo | Azure App ...
GET, POST, PUT, PATCH, DELETE



Graph Explorer

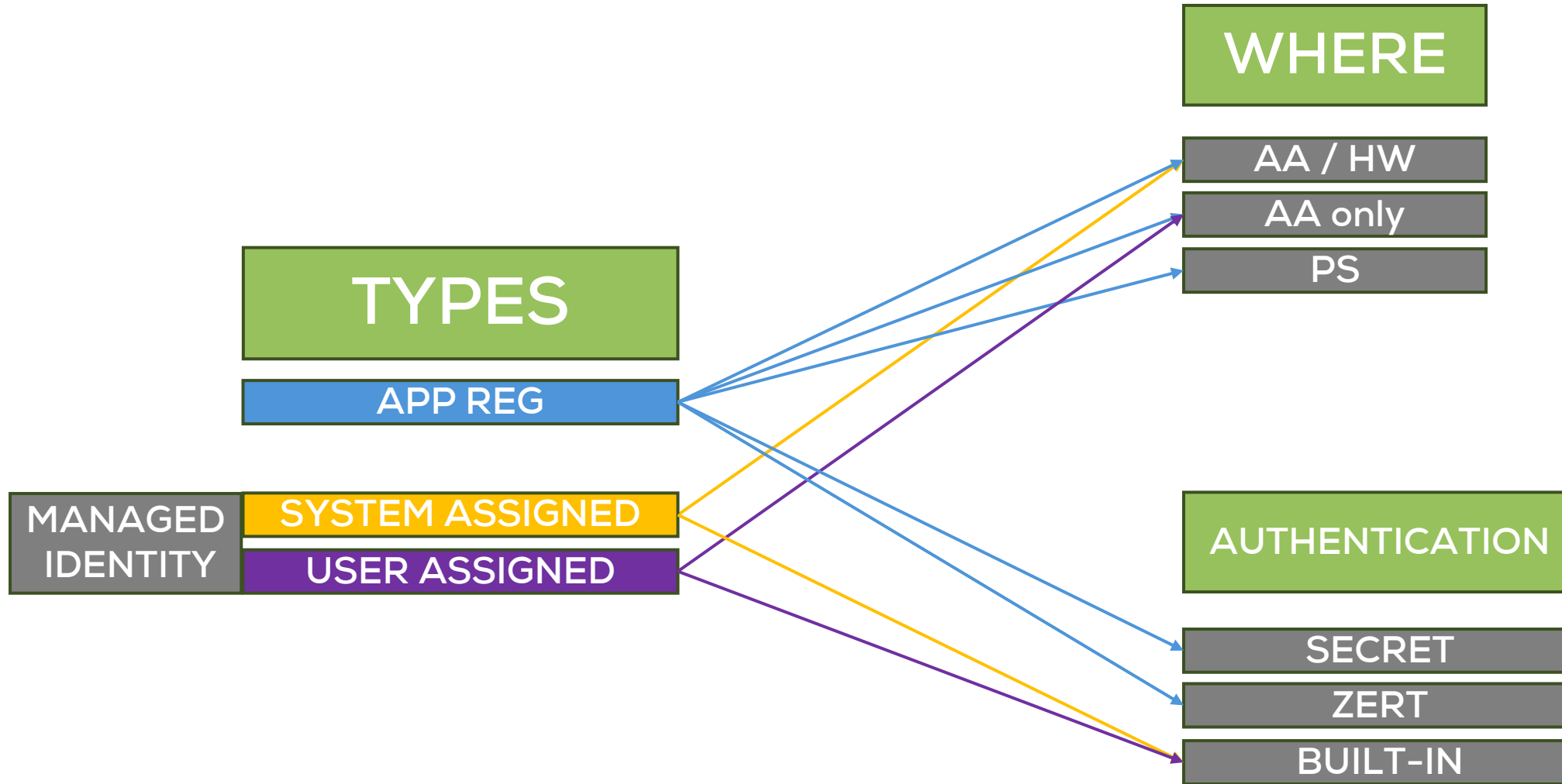


JSON

HOW to Authenticate

- ✓ **Azure APP Registration**
 - ✓ **Client Secret or Certificate**
 - ✓ **Delegate or Application Permission**
- ✓ **Managed Identity**
 - ✓ **System / User - Assigned Identity**

HOW to Authenticate



HOW to Authenticate



Delegate

- Signed In User
- Effective permission
- User/Admin Consent



Application

- No User
- App Permissions only
- Admin Consent only

GRAPH API BASICS AND AUTHENTICATION

DEMO

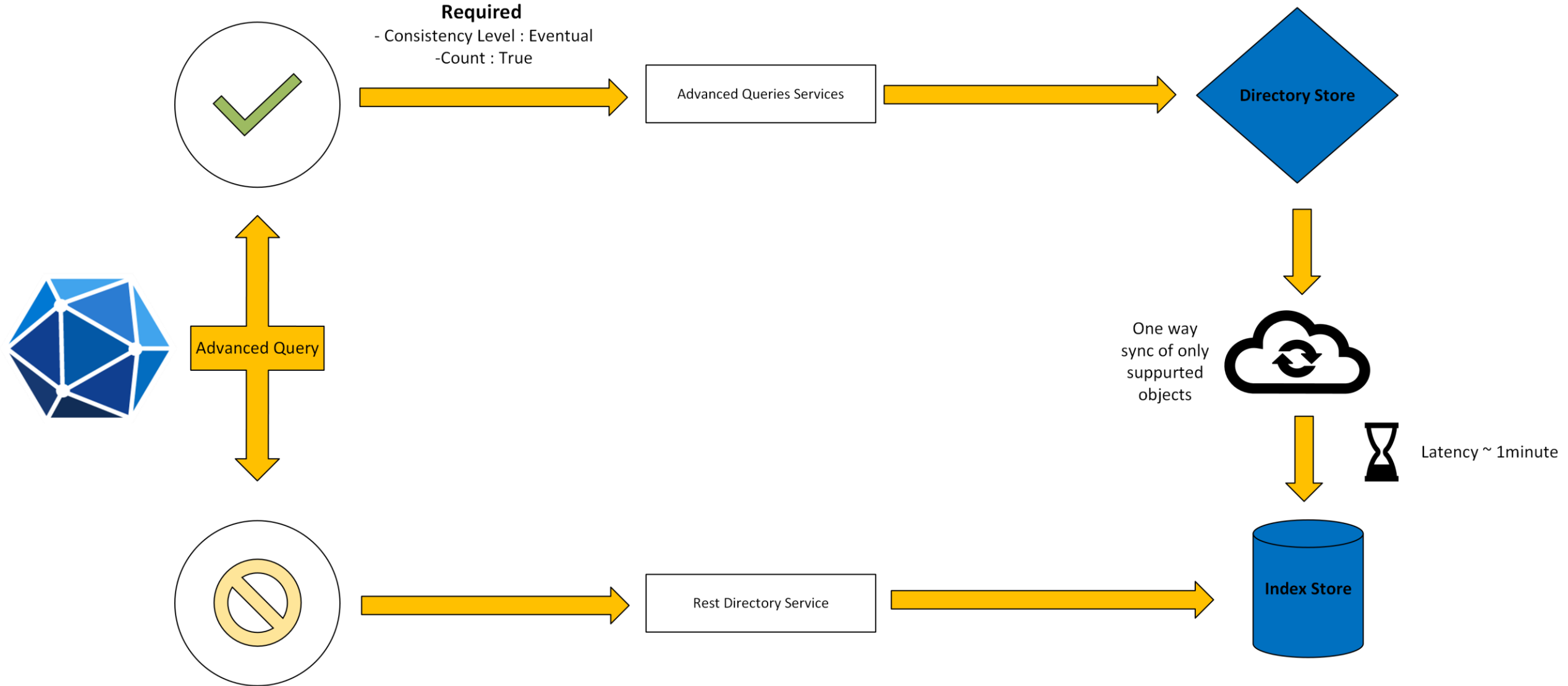
FILTER or SEARCH

- **SEARCH** only for some Endpoints
 - Endpoints
 - Outlook: Mail or Event
 - SharePoint, OneDrive: driveitem, list, site, drive..
 - Person: mainly User Object
 - Graph Connector Content
 - Admin Search
 - More Properties at once
- **FILTER**
 - Know the property
 - All Endpoints
 - Advanced Query

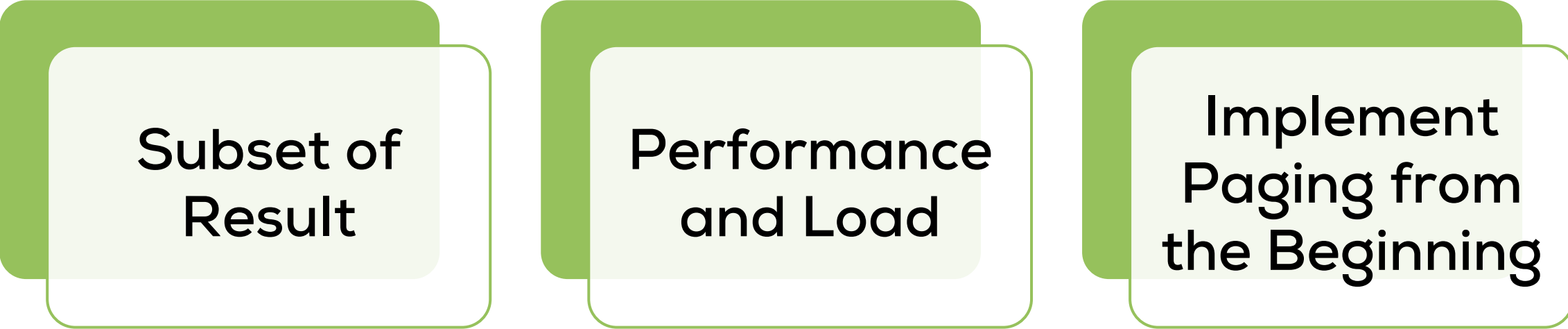
FILTER or SEARCH

DEMO

Graph API Advanced Querys



PAGING



Subset of
Result

Performance
and Load

Implement
Paging from
the Beginning

PAGING

DEMO

BATCH

- Superpower of Performance, Read and Write
- Buy 1, get 20
 - Combine 20 Requests in a single Call
- Sequence
- Throttling and Limits

BATCH

DEMO



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Michael Seidl

IT Process Automation Expert | define, automate,
and delegate your IT Processes with Microsoft Au...



Ahmed Uzejnovic

IT Automation Enthusiast | Automation
Consultant @au2mator



END is Near

- Examples on GitHub
- Q&A
- Contact

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Silver



Web



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