
# Monitor your tenant’s acces with Graph and API

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# Speaker’s info

## Andrea Martorana Tusa

- Italian living in Denmark
- Microsoft MVP Data Platform
- Product Manager in PANDORA
  - Admin of the Power BI tenant, Product Manager for the Content Management platform, Solution Owner for the Data and Analytics platform
- Speaker at many events worldwide
- 25+ years of experience in the world of data

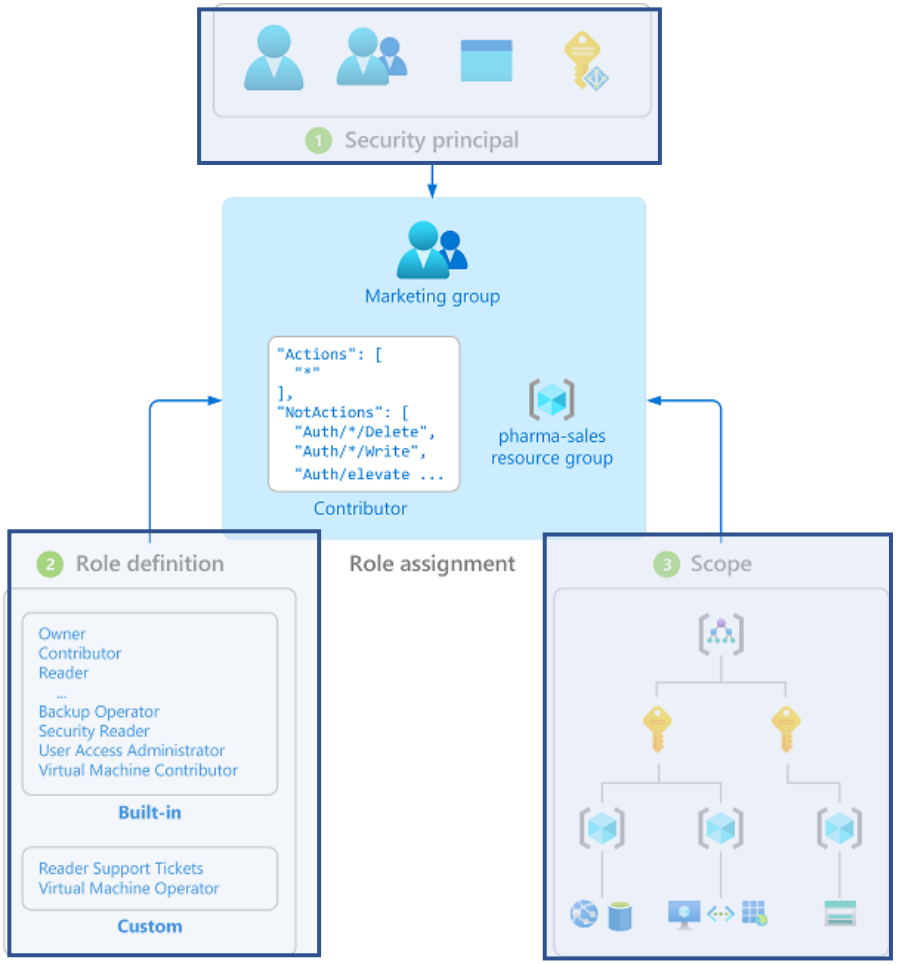
# Agenda

- Role Based Access Control
- AGDLP approach
- MS Graph API for Entra ID (Active Directory) search
- How to use the API?
- Full monitoring solution

# RBAC & AGDLP

# Role-Based Access Control RBAC

Security principal



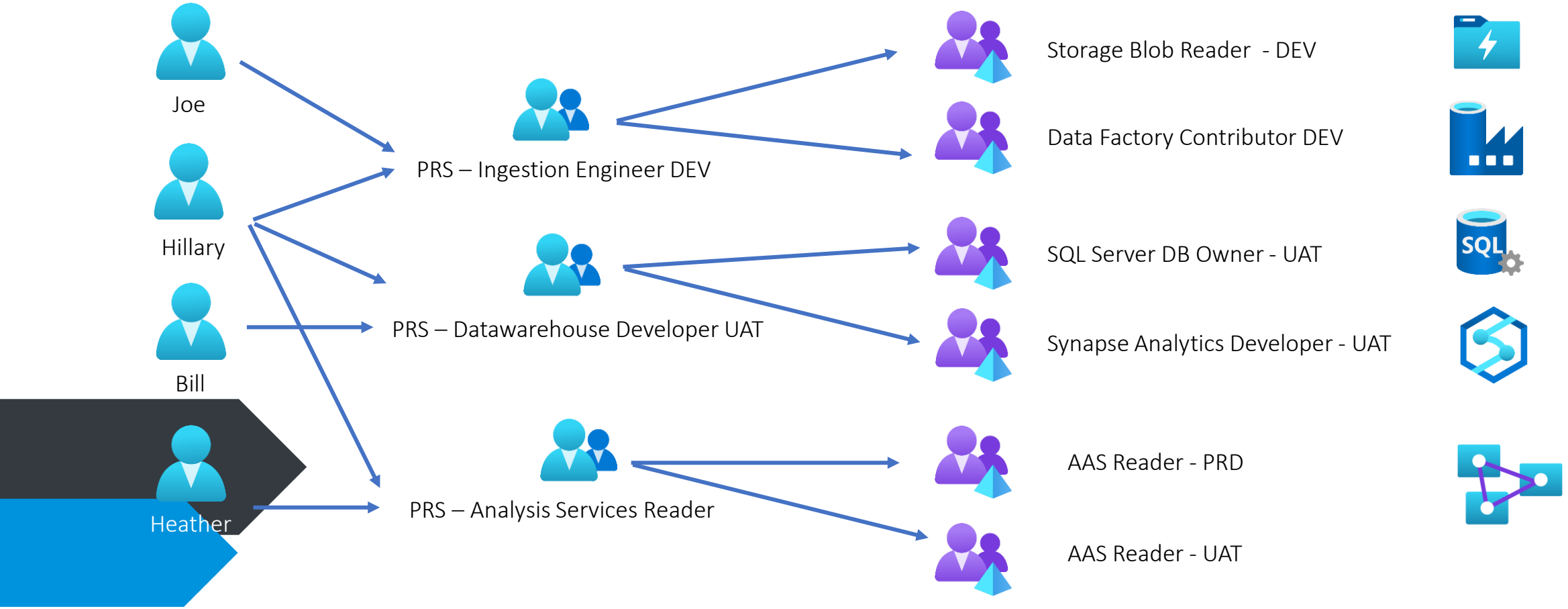

Roles

Rights

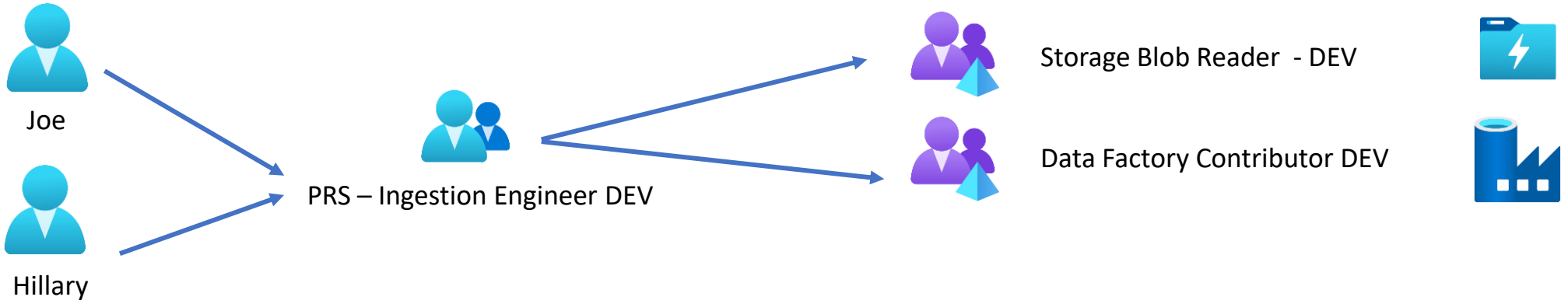
https://learn.microsoft.com/en-us/azure/role-based-access-control/overview

# How we implement RBAC: AGDLP architecture

| A | G | DL | P |
|---|---|---|---|
| Account | Global groups (Personas) | Domain Local groups | Permission |



# AGDLP architecture – key concepts

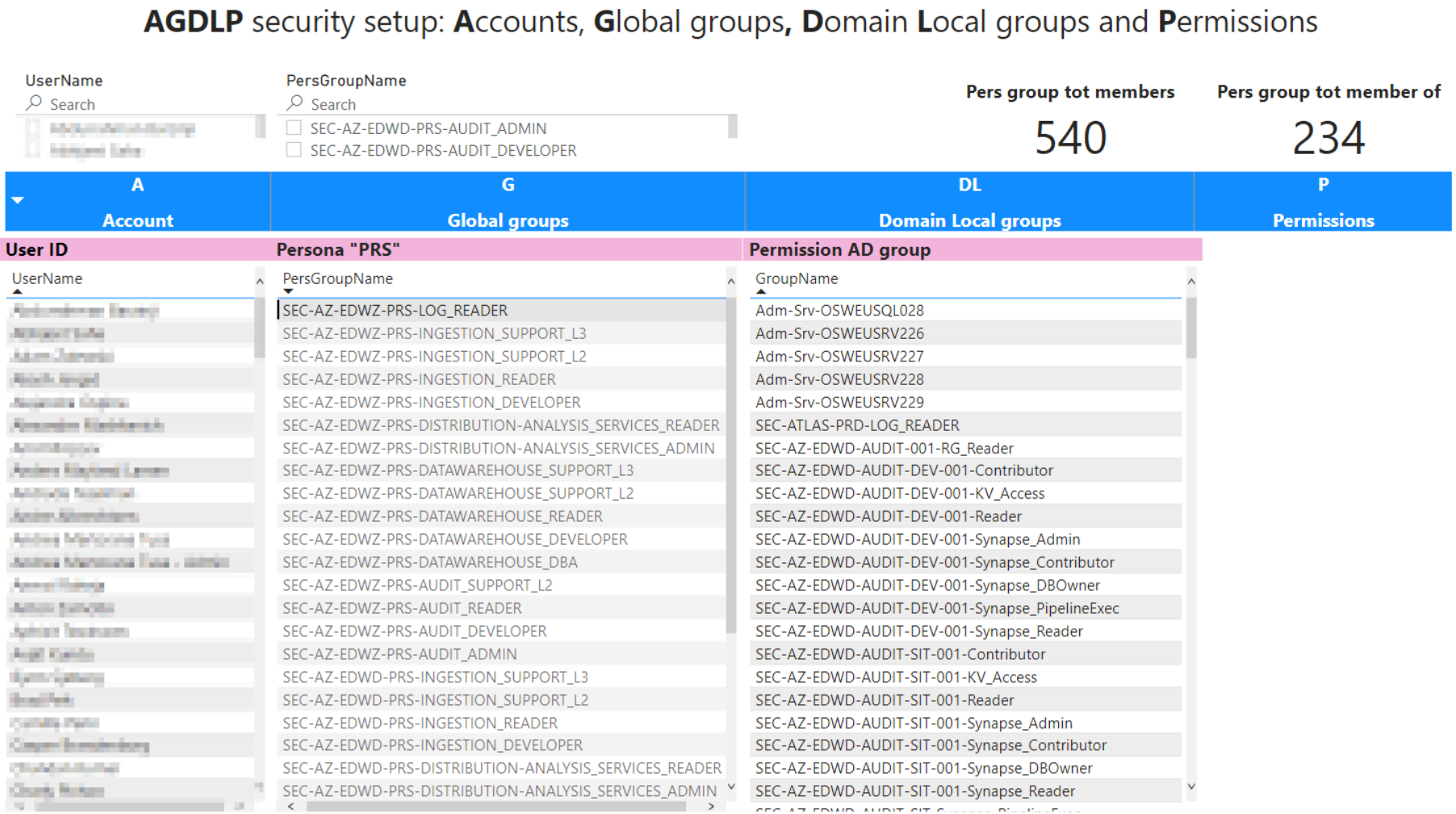



- No user account directly assigned to a resource
- All services/resources are mapped to AD Domain Local groups
- Users are assigned to Global (PRS) groups
- No user is assigned to a Domain Local group
- Domain Local groups are nested into Global groups to form a logical resources/roles grouping

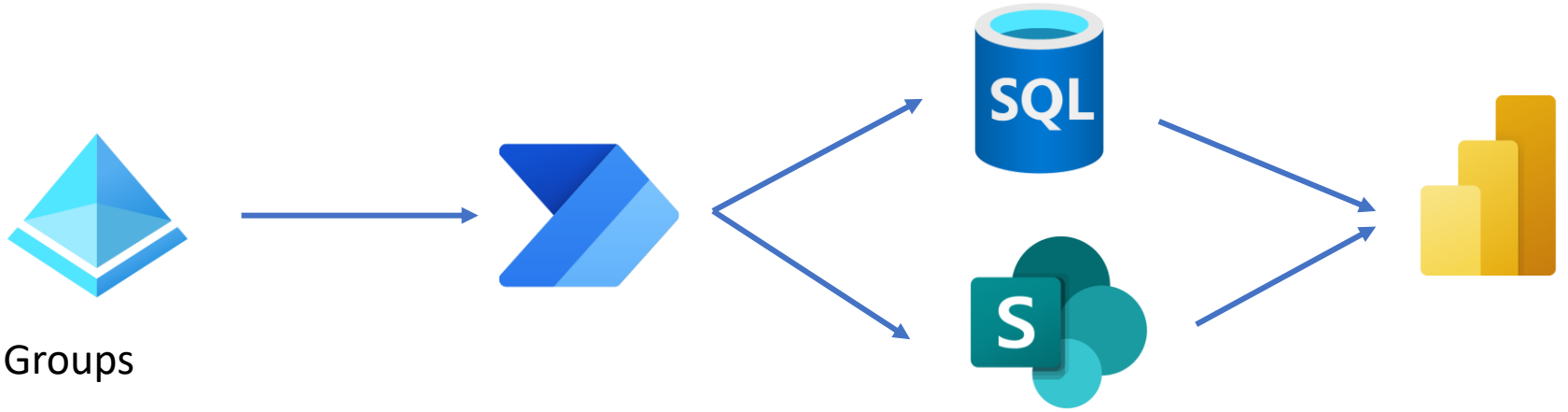
# Monitor your tenant with Graph API

# Build an access monitoring solution

Monitoring occurs via an ad hoc Power BI report: who can see what



# Workflow




Groups

Members

Nested groups

Services

Graph API call

Data storage

Data model & visualization

# Microsoft Graph API

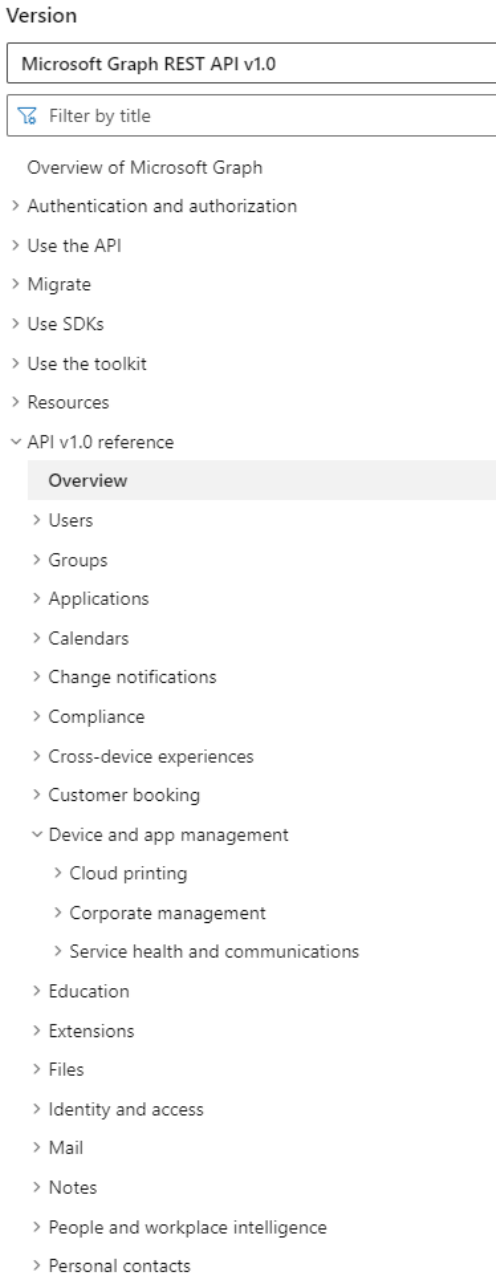
# Use the Microsoft Graph API

Microsoft Graph is a RESTful web API that enables you to access Microsoft Cloud service resources.

Base pattern:

```
http://graph.microsoft.com/v1.0/{resource}?[query_parameters]
```

https://learn.microsoft.com/en-us/graph/use-the-api




Learn /

# Microsoft Graph REST API v1.0 endpoint reference

Article • 07/01/2022 • 2 minutes to read • 10 contributors

Feedback

Welcome to Microsoft Graph REST API reference for the v1.0 endpoint.

API sets on the v1.0 endpoint (`https://graph.microsoft.com/v1.0`) are in general availability (GA) status, and have gone through a rigorous review-and-feedback process with customers to meet practical, production needs. Updates to APIs on this endpoint are additive in nature and do not break existing app scenarios.

## Common use cases

The power of Microsoft Graph lies in easy navigation of entities and relationships across different services exposed on a single Microsoft Graph REST endpoint.

A number of these services are designed to enable rich scenarios around a user and around a group.

### User-centric use cases in v1.0

1. Get the profile and photo of a user, Lisa.
2. Get the profile information about Lisa's manager and IDs of her direct reports, all stored in Azure Active Directory.
3. Access Lisa's files on OneDrive for Business, find the identity of the last person who modified a file there, and navigate to that person's profile.
4. Access Lisa's calendar on Exchange Online and determine the best time for Lisa to meet with her team in the next two weeks.
5. Subscribe to and track changes in Lisa's calendar, tell Lisa when she is spending more than 80% of her time in meetings.
6. Set automatic replies when Lisa is away from the office.
7. Get the people who are most relevant to Lisa, based on communication, collaboration, and business relationships.
8. Get the latest sales projection from a chart in an Excel file in Lisa's OneDrive for Business.
9. Find the tasks assigned to Lisa in Planner.

https://learn.microsoft.com/en-us/graph/api/overview?view=graph-rest-1.0

# Use the Microsoft Graph API

`{resource}`

- Users
- Groups
- Applications
- Calendars
- …
- Mail
- …
- Personal contacts
- …

`[query_parameters]`

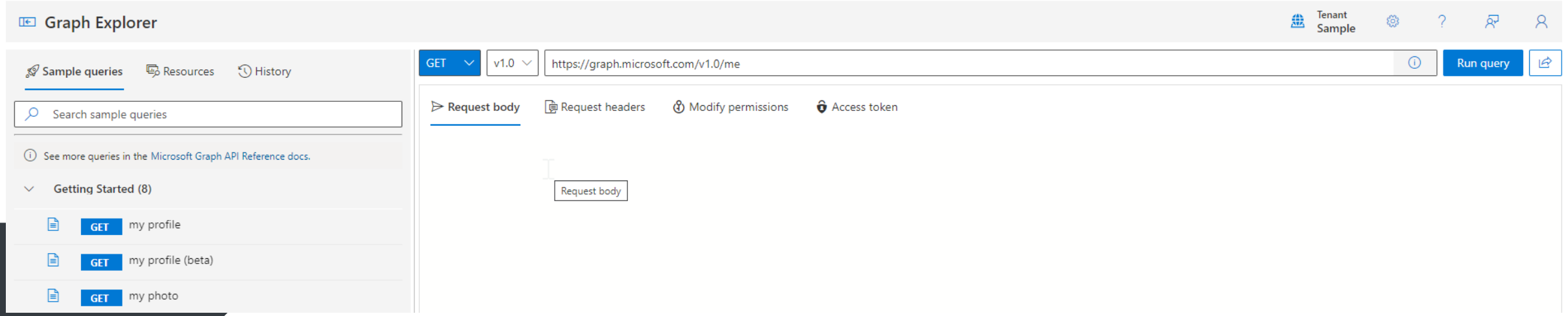
OData system query options

- Filter
- Expand
- Select
- OrderBy
- Top
- Skip
- Count
- Search
- …

# Tools for interacting with MS Graph

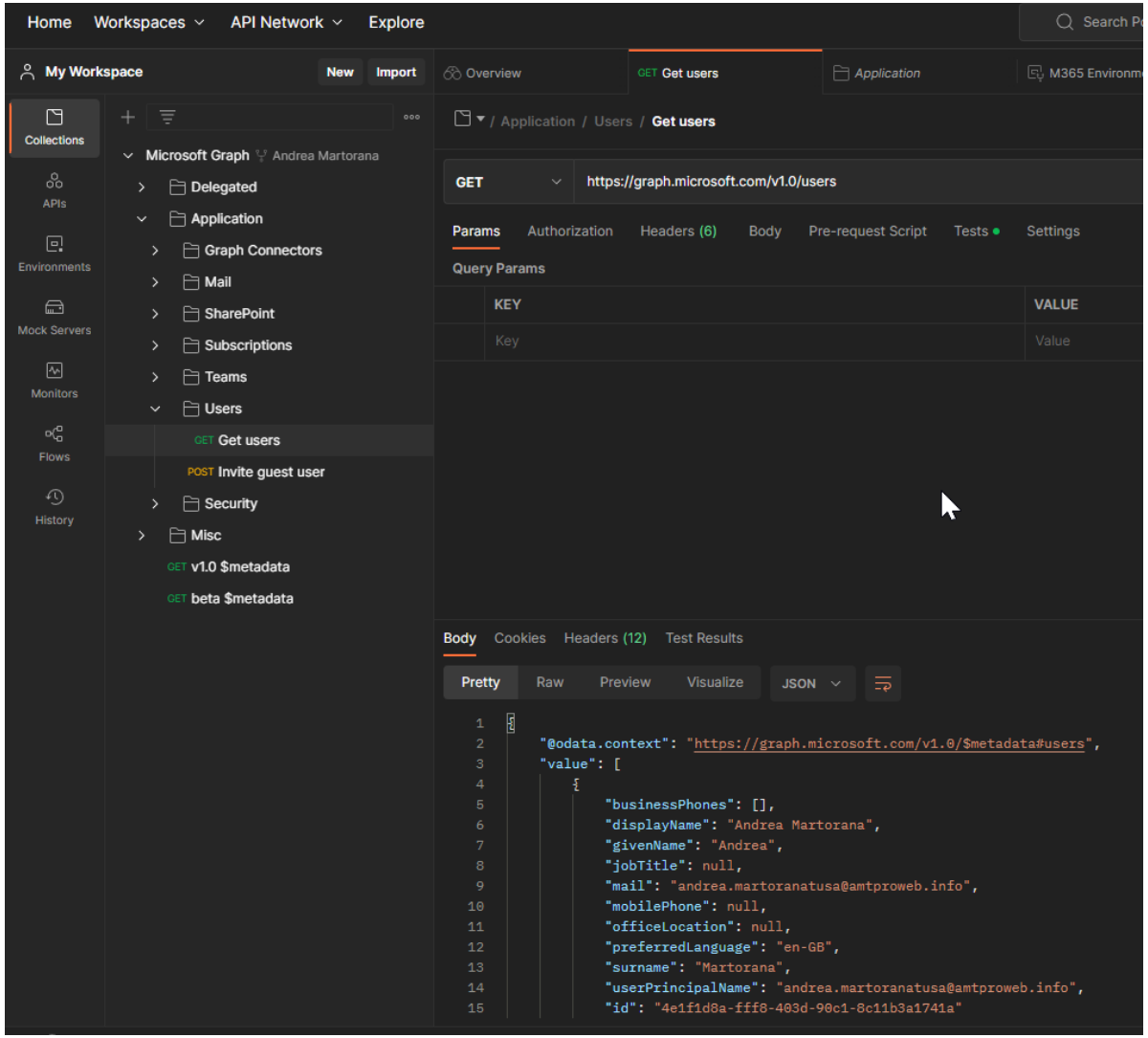
Graph Explorer

https://developer.microsoft.com/graph/graph-explorer.



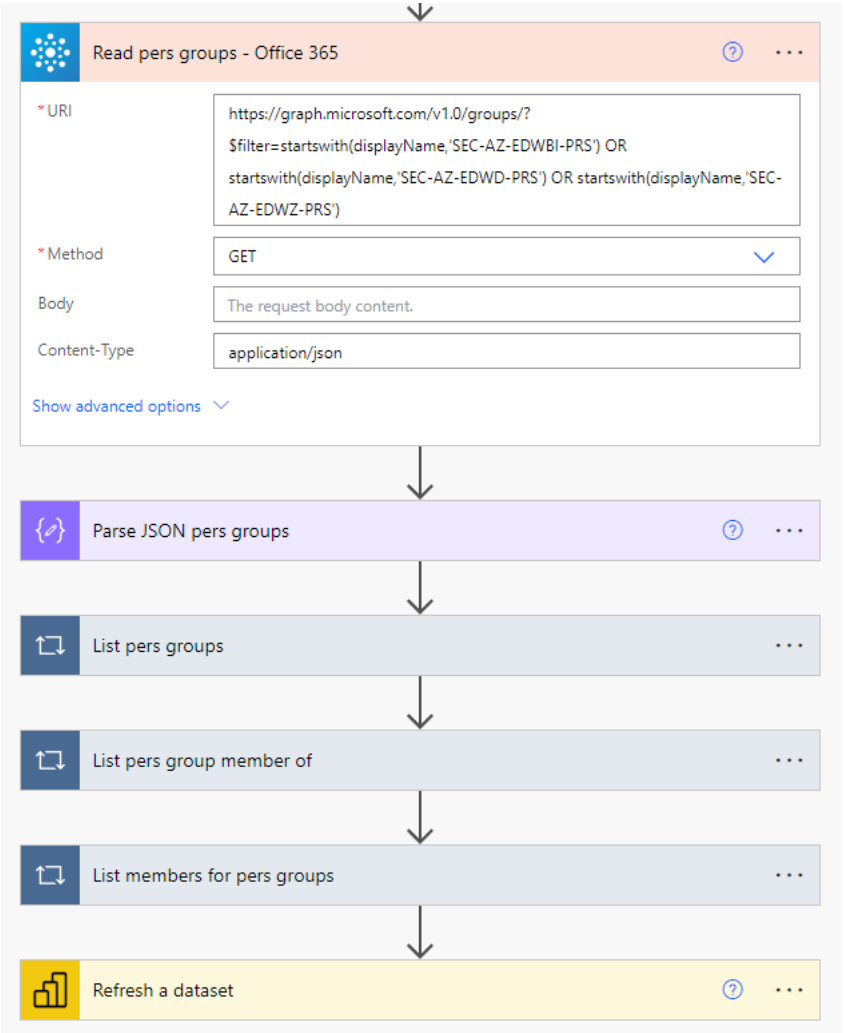
# Tools for interacting with MS Graph

Postman:



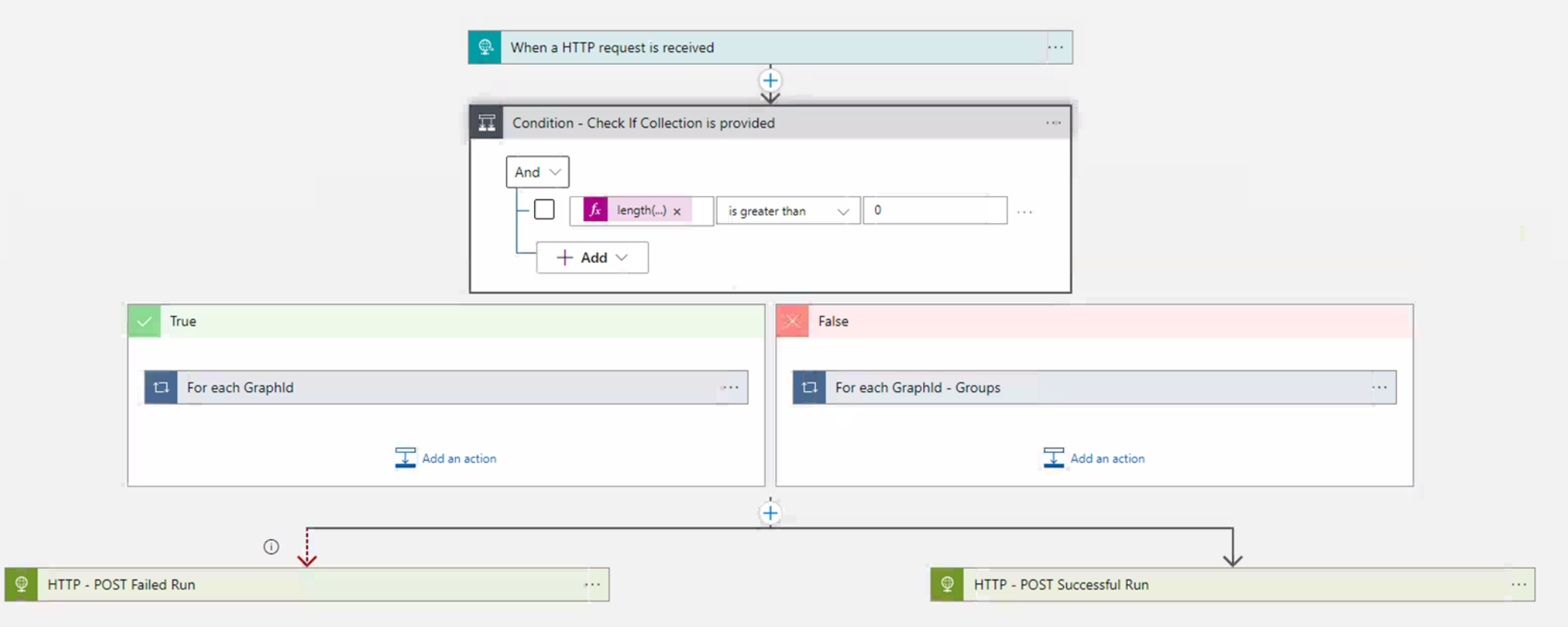
# Tools for interacting with MS Graph

Power Automate:



# Tools for interacting with MS Graph

## Logic Apps:



# Demo

- API call with Graph Explorer
- API call with Postman

# Demo

- Build a Power Automate Flow to invoke Active Directory Graph APIs

# Q&A

# Grazie!!!

# References


- https://learn.microsoft.com/en-us/graph/api/overview?view=graph-rest-1.0
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