

Andrea Martorana Tusa

Leverage Power BI automation
using APIs and Power Automate

Speaker info

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- **Microsoft MVP Data Platform**
- Title: **BI Front-End engineer**
- Company: **PANDORA** Based in Copenhagen
- Speaker for many community-driven events: *SQL Saturday* (all Europe) and other conferences worldwide
- Author for *sqlservercentral.com*, *sqlshack.com*, *UGISS* (User Group Italiano SQL Server).
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Agenda

- Power BI API
- How to use PBI API with Power Automate
- Demo, demo, demo, ...




Power BI API

Power BI API

Provides service endpoints for embedding, administration and user operations

- Admin
- Dashboards
- Datasets
- Gateways
- Groups
- Users
-

Power BI REST APIs

07/25/2019 • 2 minutes to read •    

Power BI REST API provides service endpoints for embedding, administration, and user resources.

REST Operation groups

Operation group	Description
Admin	Operations for working with administrative tasks.
Apps	Operations for working with Apps.
Available Features	Operations that return available features.
Capacities	Operations for working with capacities.
Dashboards	Operations for working with dashboards.
Dataflow Storage Accounts	Operations for working with dataflow storage accounts.
Dataflows	Operations for working with dataflows.

<https://docs.microsoft.com/en-us/rest/api/power-bi/>

What can be done with APIs?

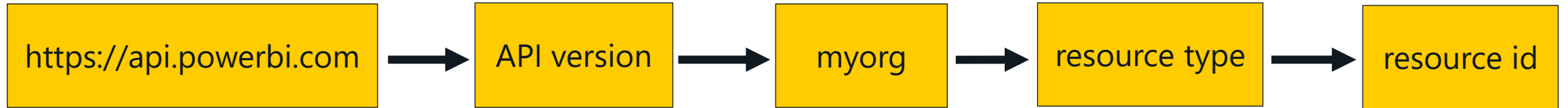
Automation: automate manual operations at dataset, table, row groups level

Embedding: Embed dashboards, reports and tiles into a custom app

Admin: get a list of objects for auditing, maintenance, troubleshooting, cleaning, ...

Reporting: query your tenant and get reporting metrics

Addressing the API



`https://api.powerbi.com/v1.0/myorg/apps`

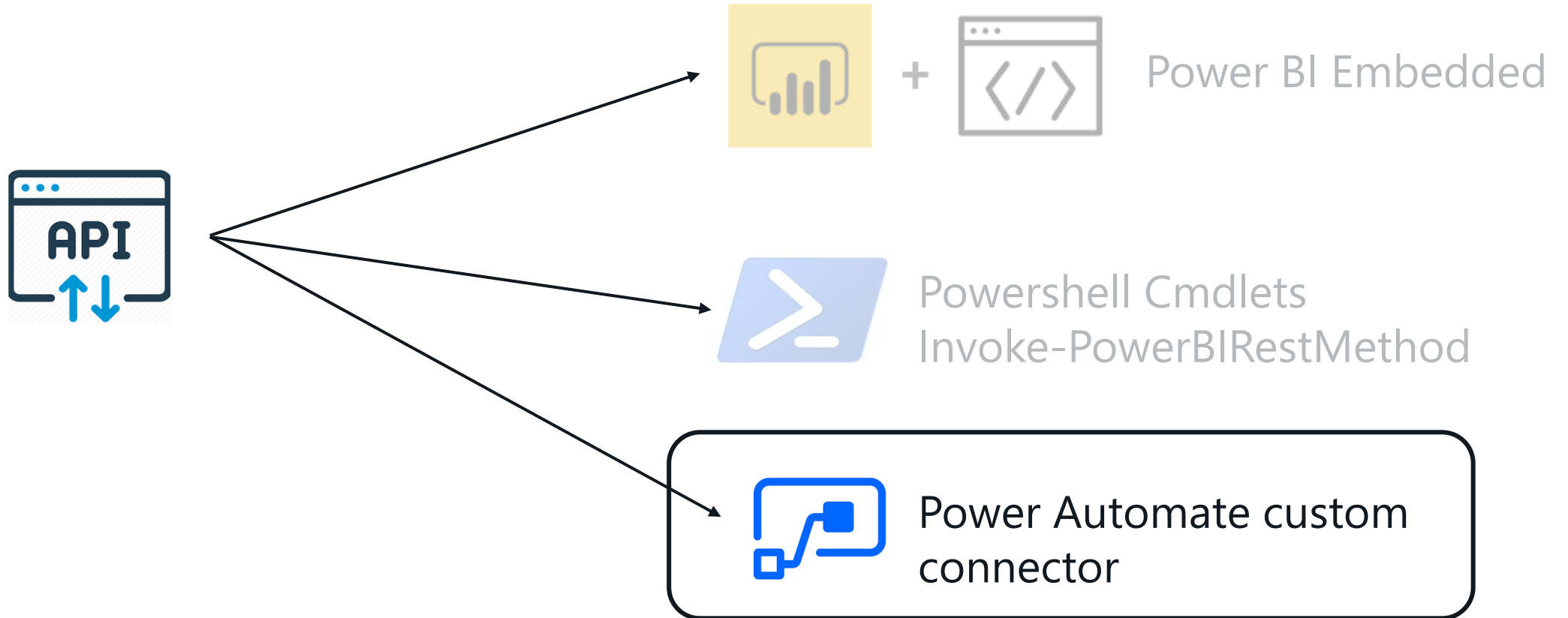
Addressing the API

GET <https://api.powerbi.com/v1.0/myorg/reports/5b218778-e7a5-4d73-8187-f10824047715>

JSON response object

```
{  
  "datasetId": "cfafbeb1-8037-4d0c-896e-a46fb27ff229",  
  "id": "5b218778-e7a5-4d73-8187-f10824047715",  
  "name": "SalesMarketing",  
  "webUrl": "https://app.powerbi.com//reports/5b218778-e7a5-4d73-8187-f10824047715",  
  "embedUrl": "https://app.powerbi.com/reportEmbed?reportId=5b218778-e7a5-4d73-8187-f10824047715"  
}
```


How to use the API

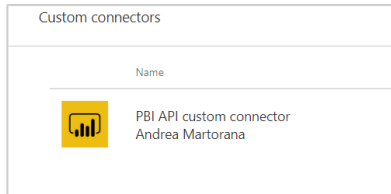


Power Automate custom
connectors

Power Automate and API

Display name : Power BI Automation API
Application (client) ID :
Directory (tenant) ID :
Object ID :

1) Start from an app already registered or register a new one



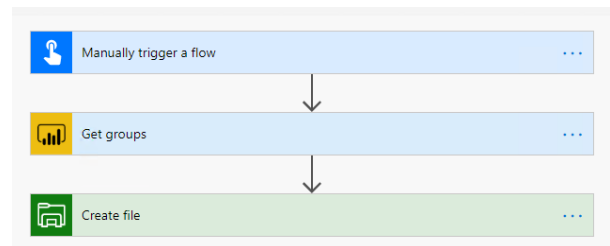
2) Create a custom connector in Power Automate

Actions (5)

Actions determine the operations that users can perform. Actions can be used to read, create, update or delete resources in the underlying connector.

- 1 GetGroupsAs...
 - 2 GetReports
 - 3 GetGateways
 - 4 GetReportsInG...
 - 5 GetGroups
- + New action

3) Add actions to the connector



4) Create a flow with triggers, approval, conditions, actions

App registration in Azure

For using APIs with Power Automate and in embedded mode, an azure app must be registered.



Developer

1) Sign in dev.powerbi.com/apps



Developer

2) Register an **Azure App**

API access

Select the APIs

[Learn more](#)

3) Grant permissions

Select all

4) Receive **Application ID** and **Application Secret** to be used in your app

Your app



5) **Embed API** in applications

API Permissions

API access

Select the APIs and the level of access your app needs. You can change these settings later in the Azure portal.

[Learn more](#)

Select all

Read only APIs ⓘ

Read all datasets

Read all dashboards

Read all reports

Read all groups

Read all workspaces

Read all capacities

Read and write APIs ⓘ

Read and write all datasets

Read and write all dashboards

Read and write all reports

Read and write all workspaces

Read and write all capacities

Create APIs ⓘ

Create content

By clicking Register, you agree to the [terms of use](#)

Register

Demo

Q&A

Grazie!