European SharePoint Office 365 & Azure Conference

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Power Apps Deep Dive

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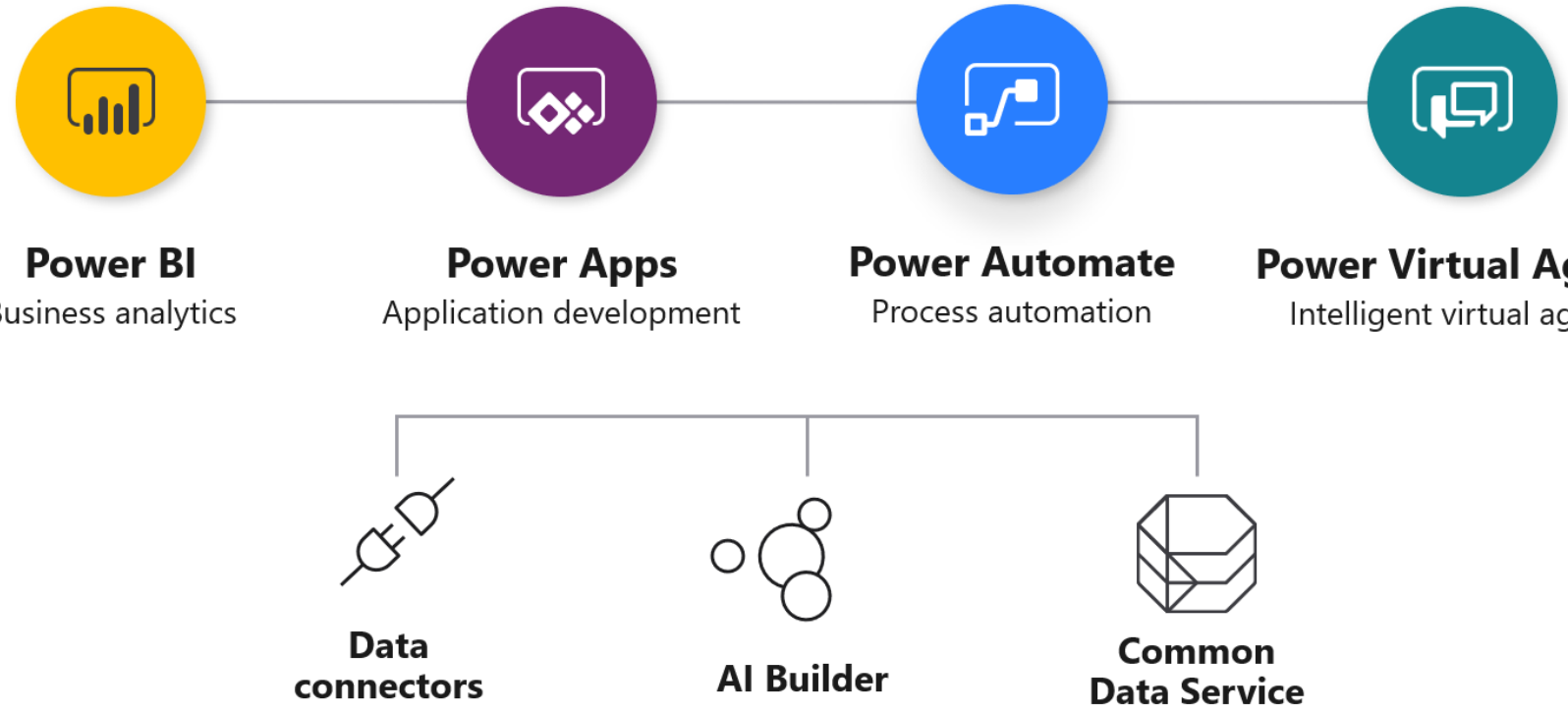
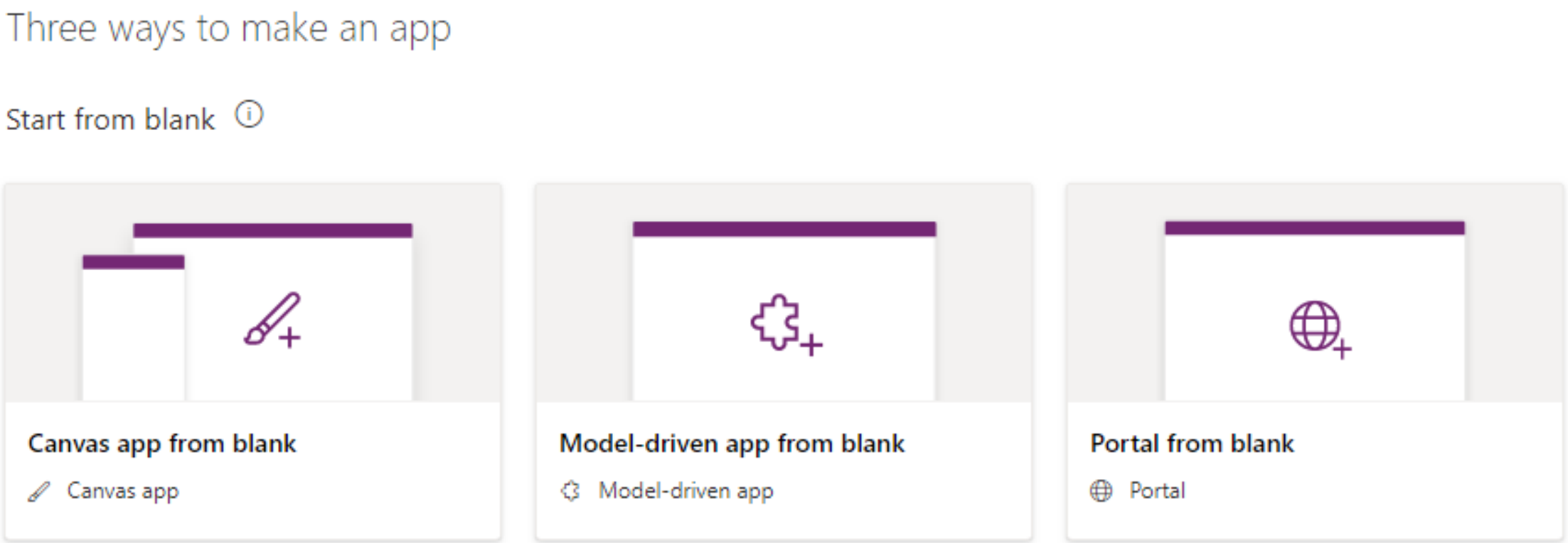
Microsoft Power Platform

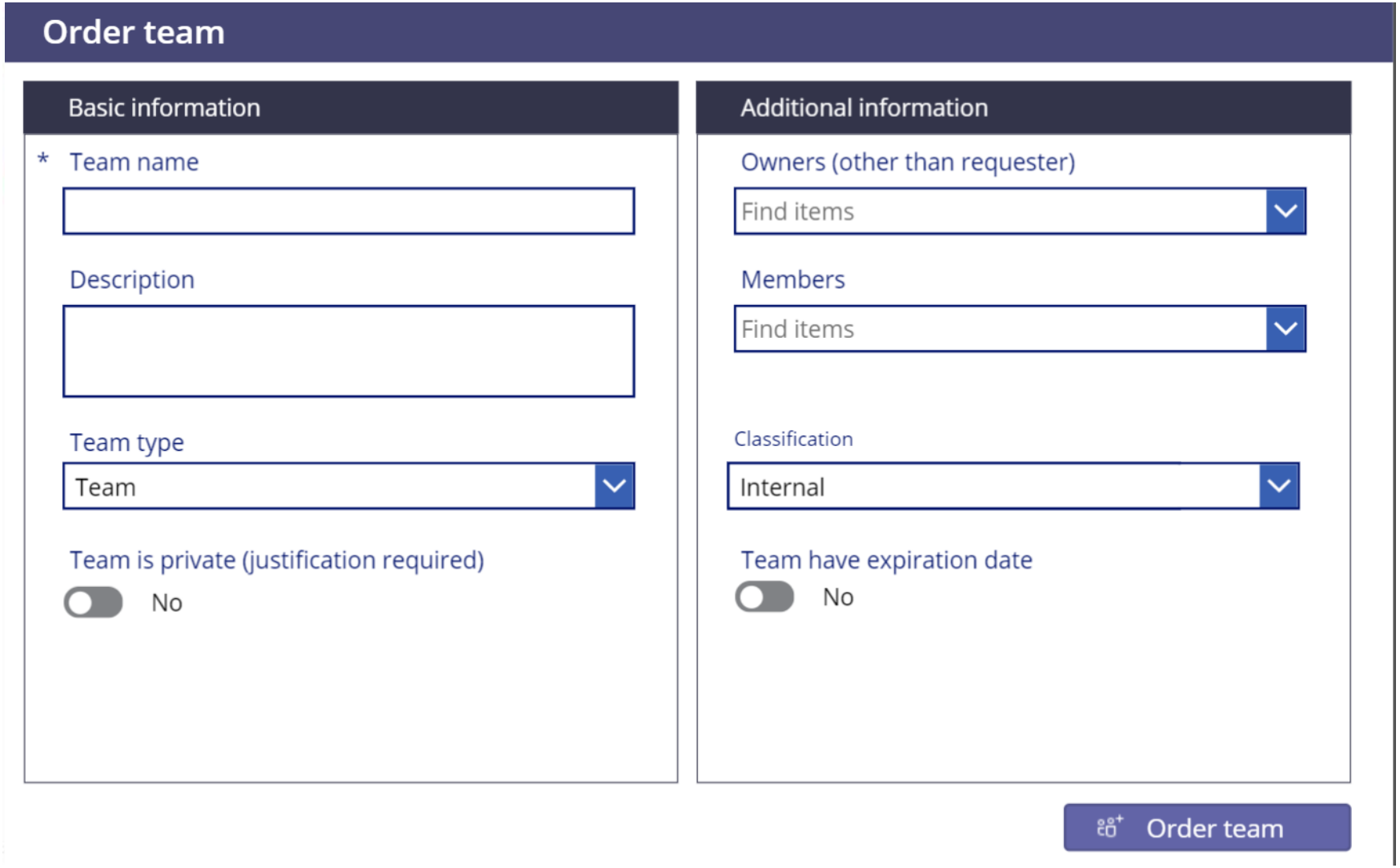
The low-code platform that spans Office 365, Azure, Dynamics 365, and standalone applications



THERE ARE ACTUALLY 3 DIFFERENT KIND OF POWER APPS



PORTAL / MODEL-DRIVEN / CANVAS POWER APPS



Licensing..

POWER APPS PLANS

PowerApps per app plan

Licensed by app
$10 user/app/month

Allow individual users to run a **single application** for a specific business scenario based on the full capabilities of PowerApps

PowerApps per user plan

Licensed by user
$40 user/month

Equip users to run **unlimited applications** based on the full capabilities of PowerApps

Seeded PowerApps

Licensed through Office 365 & Dynamics 365

Extend and customize Office 365 and Dynamics 365

IN PRACTISE

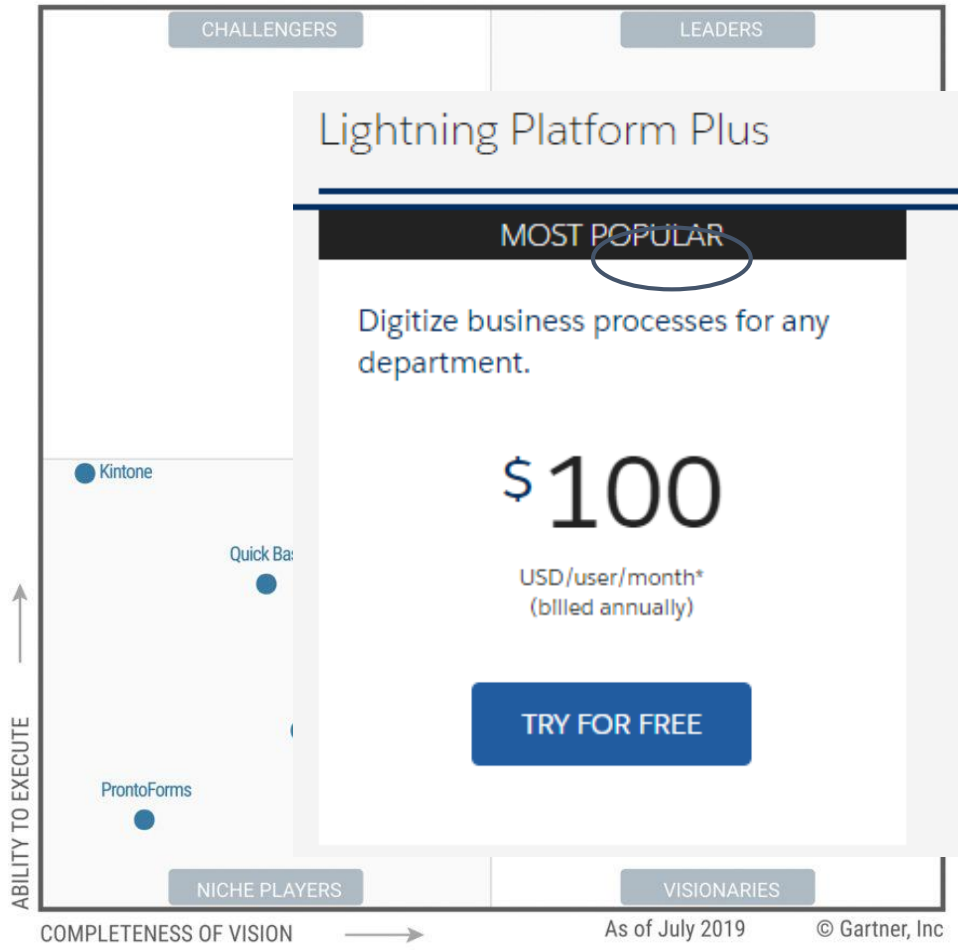
- Users needs Power Apps plan if any **premium connector** is used
  - Azure services
  - Power Apps notifications
  - Custom connectors
  - Common Data Service

- Users needs Power Apps plan if using data from on-premises (**Gateway**(s))

- Daily Power Platform API request limit for every user
- Makers and admins don’t need any Power Apps plan

EXPENSIVE OR NOT?

Figure 1. Magic Quadrant for Enterprise Low-Code Application Platforms



STANDARD LICENSING

Our standard application user.

€90

per user/month

CONTACT US

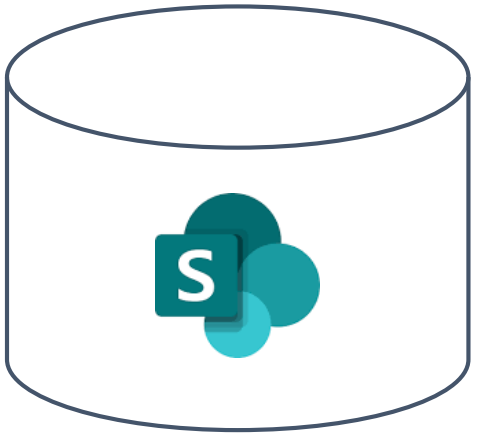
Source: Gartner (August 2019)

”Delegation? What is that?”

EXAMPLE: DELEGATION SUPPORTED

Give me all stores where location = London

Here are all 5000 stores located in London

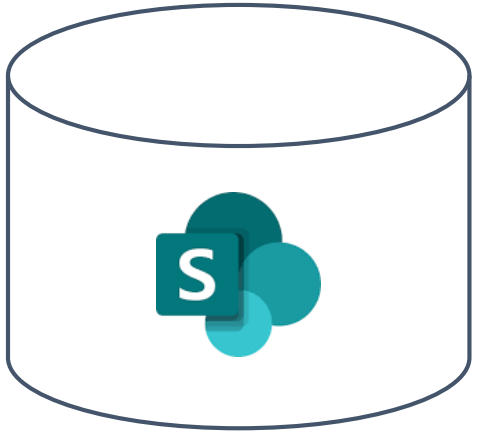


50 000 items

EXAMPLE: DELEGATION NOT SUPPORTED

Give me all stores location containing string ”London”

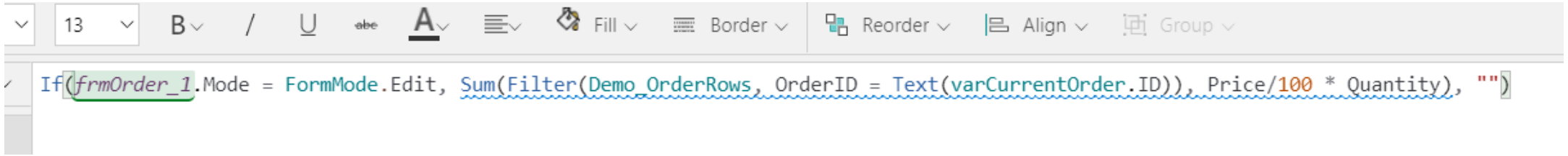
Here are 500 first stores. Please find what you want by yourself!



50 000 items

DELEGATION SUPPORT DEPENDS ON USED

- **Data source** (SharePoint, SQL Server, Dynamics 365, CDS for Apps, Excel, Google Sheet...)
- **Function** (Filter, Search, LookUp, Sort, Sum...)
- **Predicates** (Not, In, StartsWith, +, -, <, <=, =...)



Read: https://docs.microsoft.com/en-us/powerapps/maker/canvas-apps/delegation-overview

Do I have more than 500 items?

Ever

”But I have
50000 items in SharePoint.
Can Power Apps handle it?”

IT'S ALL ABOUT GETTING RID OF DELEGATION ISSUES

- Filter(AllStores, 'Created By'.Email = User().Email) ✗
- Filter(AllStores , 'Created By'.Email = varCurrentUserEmail) ✓
- LookUp(AllStores , Text(ID) = varID) ✗
- LookUp(AllStores , ID = Value(varID)) ✓
- Filter(AllStores, 'Created time as number' > var7DaysAgo) ✓

20191125 20191123

DEMO

“Which datastorage I should use?”

TOP 3 DATASOURCE OPTIONS

- Familiar for makers
- Easy to build row-level security
- Easy to work with attachments
- **Free**
- Limited support for delegation

- **Search** can be delegated
- ”unlimited”
- All users uses same login account
- Cheap
- Can be extended with views and stored procedures
- **Goodbye citizen developers**

- **Best** parts from both SharePoint list and SQL Database
- Not free either cheap

”This is freaking slow!!!!”

CHECK & TO DO

- Minimize stuff loaded on App **OnStart**
- Use concurrency when loading data
- Avoid dependencies between screens

- **Expensive operations** located
  - In ForAll
  - In Gallery

- **Delegation** warnings

CHECK & TO DO

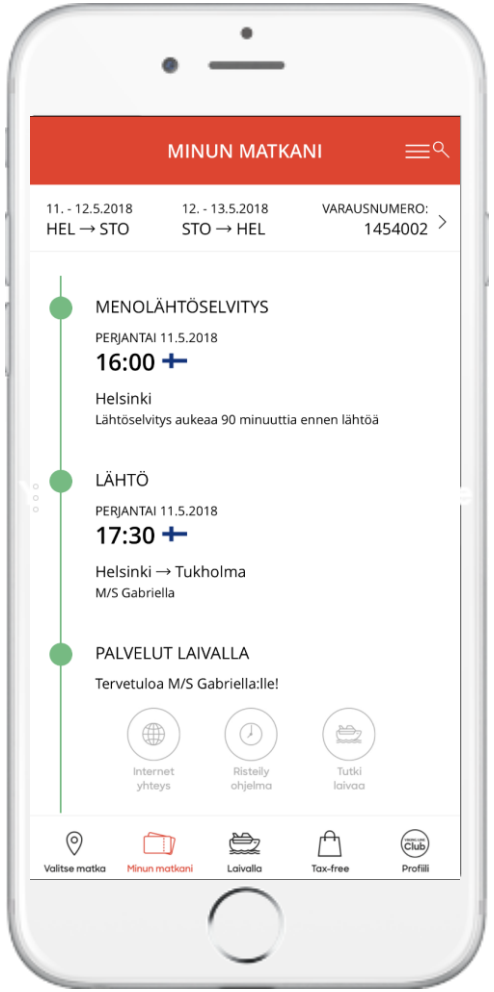
- Save / update several items -> Use Flow
- Use **galleries** when suitable
- Use **components** when suitable

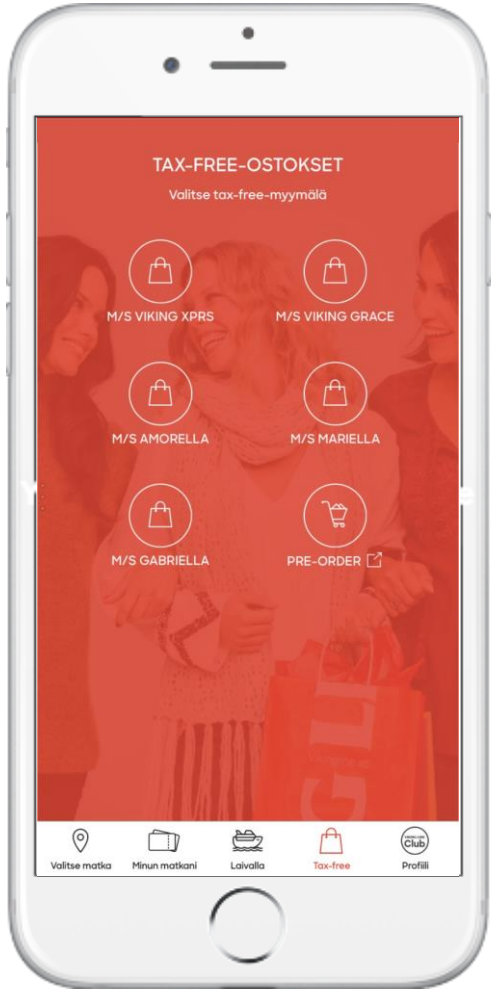
- Power App might run **extremely** slow on older mobile phone
  - Reduce number of screens
  - Reduce number of controls

- Use **Monitor** (or Fiddler or developer tools) to find out network traffic App generates

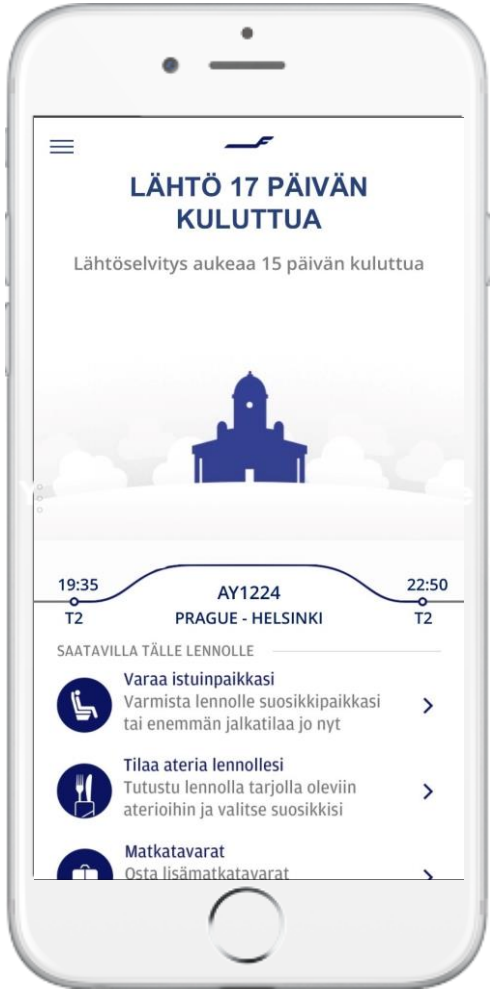
“Yes yes, it İS a great tool. But all these Power Apps looks like S+!&#”

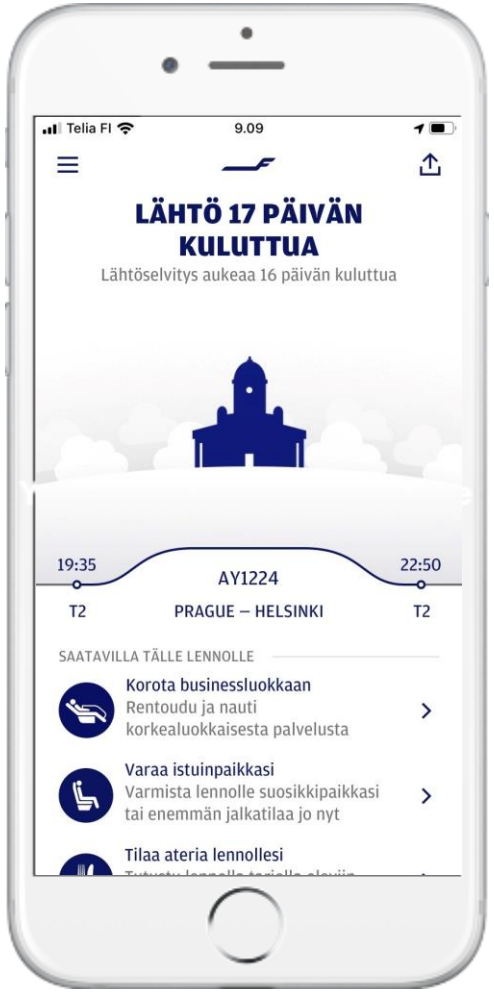
CASE VIKING LINE

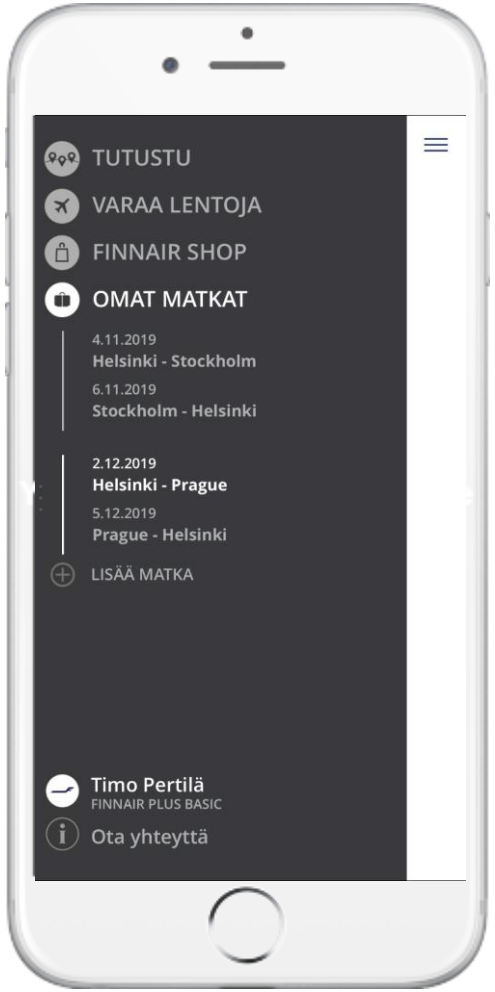


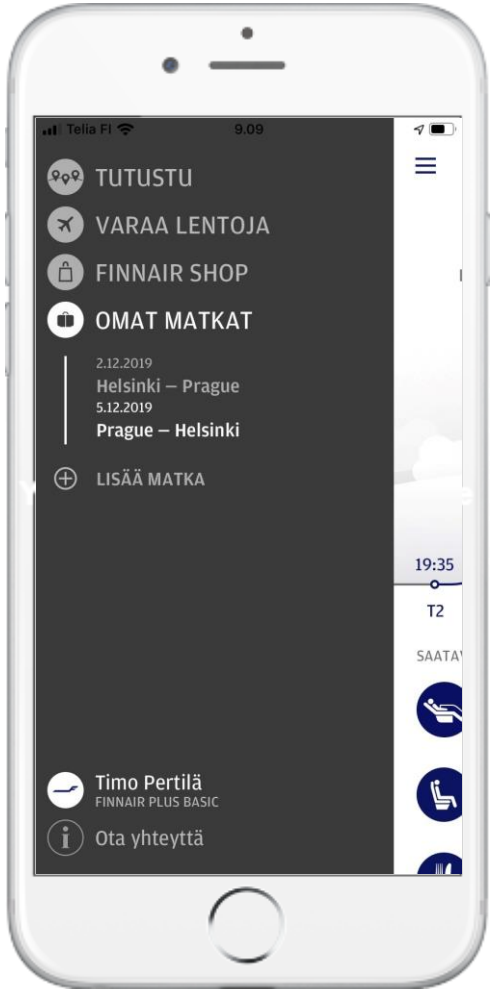


CASE FINNAIR





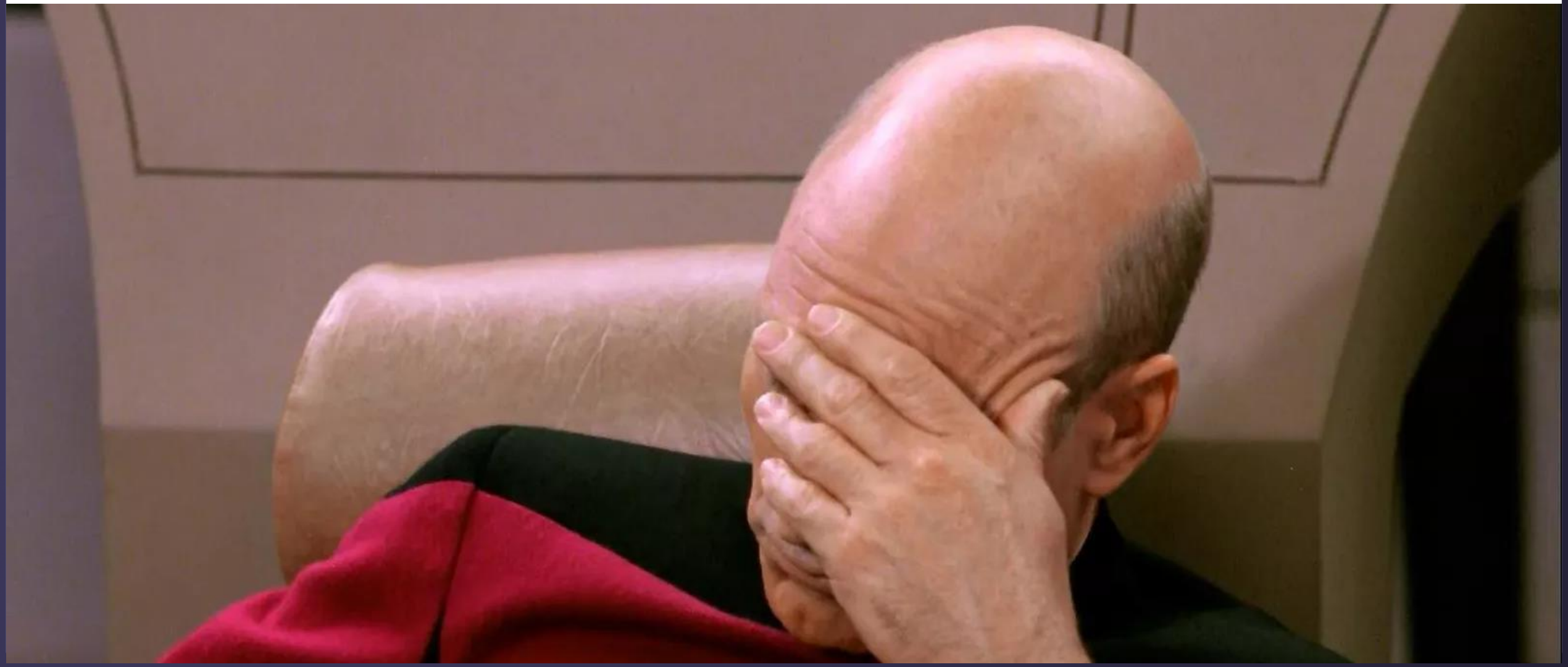




DEMO

Lessons learned

DON’T UNDERESTIMATE SHAREPOINT LISTS



FIND OUT MOBILE DEVICES END USERS HAVE

PREVIEW MEANS PREVIEW

START PLANNING GOVERNANCE NOW

POWER PLATFORM IS MUCH MORE THAN MOBILE APP BUILT ON TOP OF THE SHAREPOINT LISTS

Thank You!

@timopertila

European SharePoint Office 365 & Azure Conference

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