

# PowerApps – Deep Dive



SharePoint  
& Office 365 Saturday  
Madrid

June 22<sup>nd</sup>, 2019

Timo Pertilä



#spsmad



# TIMO PERTILÄ

Consultant, Microsoft MVP

Digital Illustrated



<https://timopertila.com>



@timopertila



timopertila

Nerd, father, husband, runner, does someone read these?



 #spsmad

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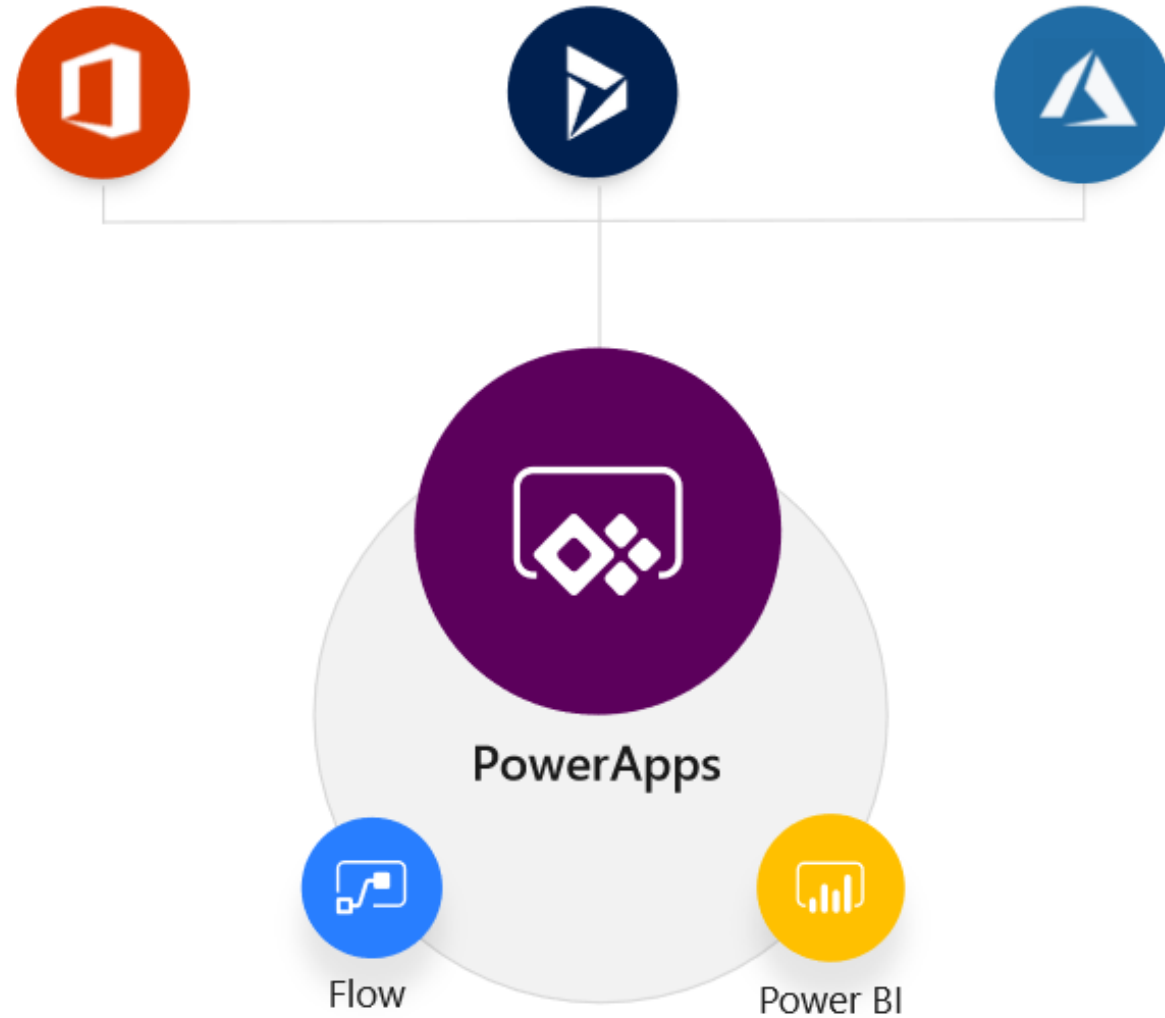


SharePoint by day, SharePint by night



# The Microsoft Power Platform

One high productivity platform that spans Office 365, Dynamics 365, and standalone applications



# Canvas / Model-driven / Portals

**Order team**

Basic information	Additional information
<p>* Team name</p> <input type="text"/>	<p>Owners (other than requester)</p> <input type="text" value="Find items"/>
<p>Description</p> <input type="text"/>	<p>Members</p> <input type="text" value="Find items"/>
<p>Team type</p> <input type="text" value="Team"/>	<p>Classification</p> <input type="text" value="Internal"/>
<p>Team is private (justification required)</p> <p><input type="checkbox"/> No</p>	<p>Team have expiration date</p> <p><input type="checkbox"/> No</p>

**Order team**

**Dynamics 365** | **SANDBOX** | Timo Perttälä

**STORE\_AUDIT\_EVENTS**  
01/2018\_Aalto yliopisto - länsi

**StoreAuditProcess**  
Active for 3 months

**Audit details**

Auditor	timo.perttala@digitalillustrated.com
Audit date	17.9.2018 10:15
Cleanliness	2
Product visibility	1
Audit completed	Yes

**Store information**

Primary Name	* 01/2018_Aalto yliopisto - länsi
Owner	Timo Perttälä
Store_Audit_Periods	01/2018
Store information	
Name	* Aalto yliopisto - länsi
Address	Tietotie 4
City	Espoo
Type	HSL Automaatti MNL

**PowerApps** | **Portals** | Untitled - Unsaved

**Pages**

- New page
- Home
- 404 Error page
- Access denied
- Page
- New page

**Contoso Ltd.**

**Welcome to your Starter Portal<H2>**

The starter portal is a basic portal that provides you with content, templates, and infrastructure to help you get started on building a functional portal for your organization quickly and efficiently.

**Web Page**

**New page**

Display

Name

New page

Partial URL

/newpage

Parent

Page

Language

English

Formatting

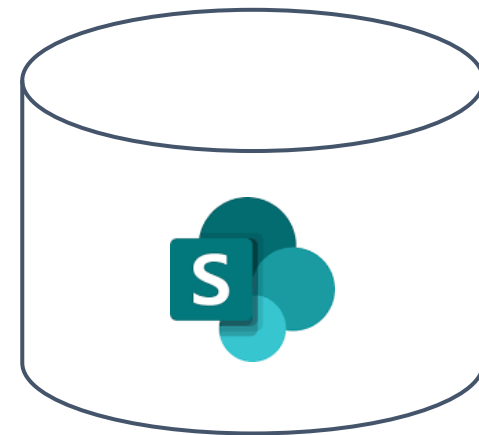
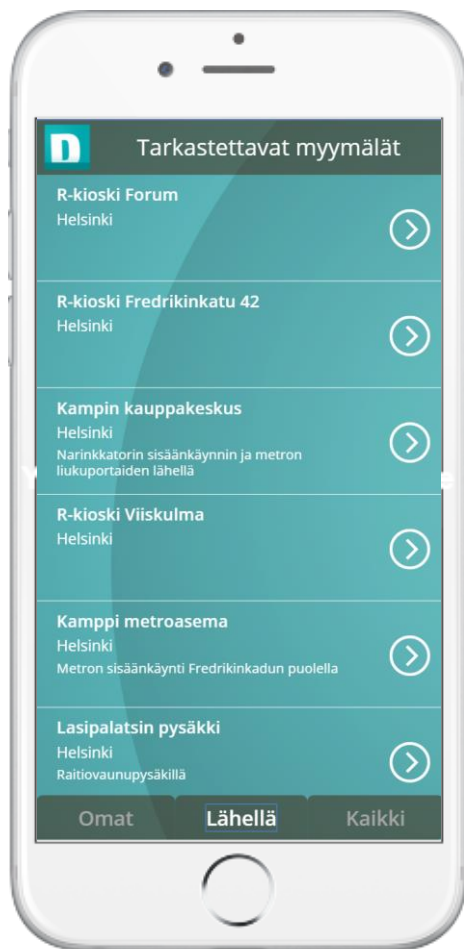
Layout

One column



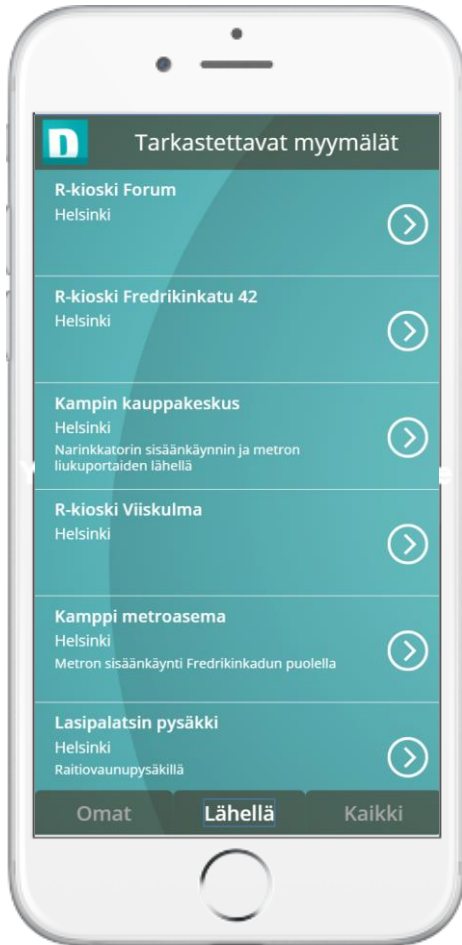
"DELEGATION  
? WHAT IS  
THAT?"





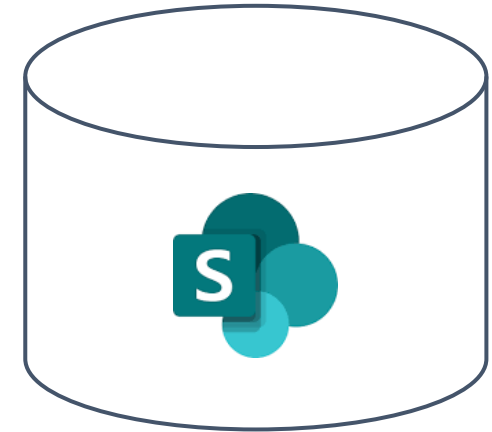


# Example: Delegation supported



Give me all stores where location = Madrid  
(filter)

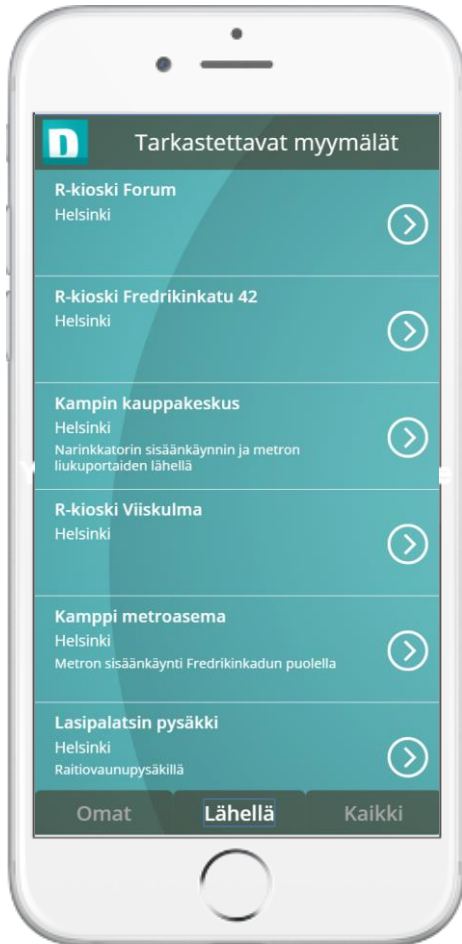
Here are all 5000 stores located in  
Madrid



50 000 items

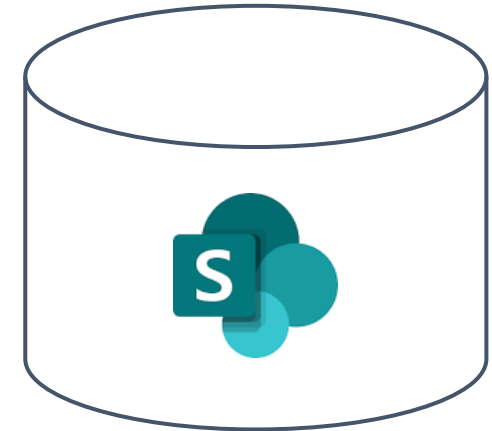


# Example: Delegation not supported



Give me all stores located in Madrid  
(search)

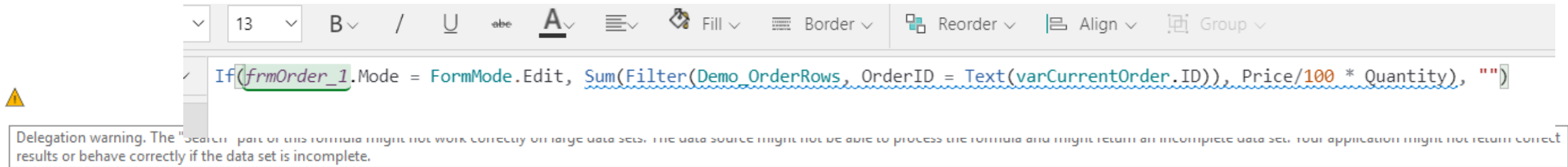
Here are 500 first stores. Please find  
what you want by yourself!



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 PowerApps handle it?



# It's all about getting rid of delegation issues

- `Filter(Stores, Status.Value = "Waiting for audit")` ✗
- `Filter(Stores, Status = "Waiting for audit")` ✓
- `Filter(Stores, Text(ID) = gallery.Selected.ID)` ✗
- `Filter(Stores, ID = Value(gallery.Selected.ID))` ✓
- `Filter(Stores, 'Created By'.Email = User().Email)` ✗
- `Filter(Stores, emailOfCreatedBy = varCurrentUserEmail)` ✓
- `Filter(Stores, Created > Today() - 7)` ✗
- `Filter(Stores, CreatedAsNumber > 20190622 -7)` ✓



# WHAT DATA STORAGE E 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



# Shortly

- If you can (afford) -> **CDS for Apps**
- If you need search and you have more than 500 items -> **SQL**
- If you have huge amount of items -> **SQL**
- All the rest -> **SharePoint**



"THIS IS  
FREAKING  
SLOW!!!!"



# Remember

- PowerApp on older mobile phone can be extremely slow
  - Reduce number of screens
  - Reduce number of controls
- Check expensive operations located in
  - ForAll loops
  - Galleries
- Check delegation warnings



# Remember also...

- Saving / updating several items -> Do it with Flow
- Use concurrency on App OnStart
- Use galleries when suitable
- Use components when suitable





“ALL THESE  
POWERAPPS  
LOOKS LIKE  
SH!&#”





# LESSONS LEARNED









## 2. Don't overestimate SQL databases



3. Find out mobile devices end users have



## 4. Preview means preview

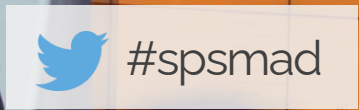


5. Start planning governance now

The top half of the image features a teal background with various abstract geometric shapes. These include orange circles, a grey circle, orange and grey rounded rectangles, and white wavy lines. The shapes are scattered across the teal area, with some extending slightly into the white area below.

# Thank You!





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Newest Popular Experts Unanswered Unread

**File name character limit?**  
badgerbear in Microsoft Teams 11 hours ago

Does anyone know the character limit for file names in Teams? I read somewhere that it's 150 characters and that includes the file path but when I tested it, it seemed closer to 160.

44 Views 0 Like 5 Replies

adam deltinger replied to badgerbear on 06-02-2019

Yup, just too early 😊

**Cannot change Profile Picture on Teams**  
Elissa Wang in Microsoft Teams on 01-11-2017

I asked T-bot on how to change your profile picture on teams but when I went to my profile, it doesn't give me the option to "change picture". It just says my name and my status. is there a newer version I need to install?

36.5K Views 4 Likes 24 Replies

Jean-Marie AGBO replied to Elissa Wang on 06-02-2019

@scotta81 try to reconnect to Teams or restart it ?It can take a while for your picture appear on in Teams client.

**Buying Office 365 sub from Microsoft vs a Microsoft Partner seller of off...**  
Stewart9 in Office 365 9 hours ago

Is there any reason not to buy an Office 365 Subscription from a Microsoft Partner instead of buying an Office 365 subscription direct from Microsoft? For example, Senetic is selling Office 365 Business Essentials for \$4.32/Month (\$48.96/annual) as oppose... [Read More](#)

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150 %


Results Messages

	MY_VALUE	HASH_IDX
1	100001	2
2	100002	2
3	200001	3
4	200002	3

**Lesson Learned #89: Splitting a partition of a partitioned table in Azure SQL Database**

Jose\_Manuel\_Jurado in Azure Database Support Blog yesterday

Member Of The Week



Helios Comms  
Contributor

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# Raffle

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You can win one of these gifts:



If you want to participate in **the final raffle**, you must get the signature of our Platinum, Gold and Silver sponsors in their stand. Once you have all the signatures, complete the poll about the sessions and give us this sheet at 06:20 PM in the Auditorium room.

東京' TOKIOTA	raona	encamina PIENSA EN COLORES	everis an NTT DATA Company	RICOH imagine. change.
plain concepts	kabel	au	intelequia SOFTWARE SOLUTIONS	NECSIA Digital Transformation

My name is: **Odor** My e-mail: **Odor@winterfell.com**

Por favor, puntúa las sesiones en el **campo gris** con números desde 1 (muy mal) a 10 (gran sesión).

Please, rate sessions in the **greyed field** with numbers from 1 (too bad) to 10 (great session).

9:25 AM - 10:20 AM	SPFx Ninja Next Level: Beyond SharePoint	Productividad basada en AI	Personalización de Modern Sites: rápido, moderno... y extensible con Site Scripts & Site Designs	Lleva tus aplicaciones de PowerApps a otro nivel
	<b>10</b>			
10:25 AM - 11:20 AM	Es el momento, empieza a desarrollar para Microsoft Teams	Detección y Protección contra Amenazas Avanzadas con Office 365 ATP	Using Automation in Office 365	I developed a SharePoint Framework solution, what to do next and how to install it by code?
			<b>9</b>	
12:20 PM - 12:55 PM	Working with SharePoint REST APIs -	El nombre del juego es Integración, Integración, Integración	Project Online REST API made easy with SharePoint Framework and PnPjs	How to get authentication out of the way quickly
	<b>8</b>			
01:20 PM - 02:15 PM	El futuro de Office 365 en 2020: la INNOVACIÓN	Forjado a SharePoint, tu seguridad de acero	WOW your coworkers with awesome looking lists: conditional formatting in SharePoint	SecOps or Dev/SysOps tools - Azure Policy and Resource Graph

# Office 365 for IT Pros

Get a 20 % discount buying the book here:

<https://gumroad.com/l/O365IT/Spoisgreat>

# Office 365 for IT Pros

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with Paul Robichaux,

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