Introduction to PowerApps for Access Developers

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Or how I learned to love being a citizen developer*

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*not really†
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My background

- Started in mainframe/mini development (punched cards and green screens) – COBOL, Algol68R, Fortran
- Mid 80's – came the PC into business
- Used Windows since v2.x and Access developer since the 1st beta (this does not, necessarily, make me an expert!)
- 20+ years of IT Management dabbling in code for internal needs
- Now self–employed, I have three development areas:
  - Turn data into information – long term (pseudo–)agile/prototyping projects
  - Build new systems to replace rubbish or outmoded system
  - Take over maintenance
- That's my excuse list finished ☺

Agenda

- Scenario setup – Judith Mills (done!)
- How did I get interested in PowerApps
- Demo development of a PowerApps app
- Where I see it working well
- Where I see it working badly
- My hints and tips

How did I come to PowerApps

- I genuinely cannot remember!
- But I had tried Xamarin/C# for cross platform stuff – it was just too hard
  - (and had too many {})
  - I'd even tried the Xamarin online development push Microsoft did earlier this year – didn't work on my machine.
- Check out https://jenstirrup.com/2018/09/15/why–i–changed–my–mind–about–powerapps–and–became–a–fan–and–why–you–should–too/amp/
- It is mighty powerful, and brilliant in some places
  - (and ***ing lousy in others)
- PowerApps will survive and evolve, it isn't another AWA; Microsoft are investing heavily

Demo development of a PowerApps app

- Hold on to your hats, this might be an interesting ride…

- I will doing everything from creating a new O365 tenant onwards
- If that fails, I have a fallback tenant already created
- If the data imports fail, I have data/apps already there

- If that fails, ermmmmm

- Oh, and much as I'd like to go off piste during the demo, I am walking a tight rope, so won't!

Where I see it working well

- Jobs in the field or the workshop
- Checklists
- Anywhere a user only has a phone or a tablet
- Maybe on the desktop for kiosk type work
  - Or engineering workshop where a full app would be a bad idea
- Proper "RAD". It's really well suited to that (ask Judith!)
- Where you want a simpler, more idiot proof, app
- Even when your client has invented a new form of idiot

Where I see it working badly

- Anywhere you are trying to build the full Access front end experience – don't bother (IMHO).

  - For a simple app running on a tablet

- Consider RDP instead (if you have to).

- Windows desktop only world (not necessary)

My Hints & tips – General (1/5)

- Based on a few months of bitter experience!
- Office 365 is key
- Keep it simple
- Don't try to outthink PowerApps, you'll lose
- Use the documentation of functions online
- Use the fora that are out there
- Security and resilience of the on–prem broadband pipe is key
- Connectivity in the field is key (collections)
- Test systems become interesting. Name change of data source.
- Keep your iterations, release often.

My Hints & tips – SharePoint (2/5)

- Don't exceed 500 rows
- Use separate lists if possible for simpler date (fewer distinct statements)
- Indexes, have at least one unique index
- But, look out for the Title column
- KISS – make lists that compare with SQL Views of your data
- Remove row data as soon as no longer needed
- It's so easy to link from Access, it's a breeze
- Perhaps more work to manage from a SQL/Access setup
- Attachments are easy

My Hints & tips – SQL (3/5)

- Firstly – SQL Azure
    - You're a 365 tenant already (well, probably)
    - No SQL management (well, not really)
    - It (pretty much) just works (no, truly)
    - No really ! Just connect with SMSS, build your schema, add data
- Secondly – on–prem if you like, need or must – you use the Power Data gateway
    - On a dedicated, always on, computer
    - But you have so much more management, if your client is an SME, maybe just use SQL Azure
    - Security of the data gateway needs to be considered

Hints & tips – Other (4/5)

- Multiple sign in to tenants – third party cookies on (private mode doesn't help – KMSI)
- Edge seems better than Firefox
- Stay one page ahead – it is constantly changing.

- Think 3 forms – so much of what you can do with it:
    1. List of things to do – pick one
    2. See all the details of the one you picked
    3. Do it

- Keep the PowerApps app itself up to date
- Recompile the app every now and then and test

Hints & tips – Other stuff (5/5)

- Images – you can grab signatures and things
- Barcodes – scanning works (badly IME) so far
- Attachments – upload photos to SP lists
- Capitalisation – watch out, it's a Unix world!
- Leave/Stay – save constantly
- Although I've not mentioned them, there are oodles of data connections from Microsoft. You can pretty much connect to anything (except Access), lots of it free.

- I've only scratched the surface!!!
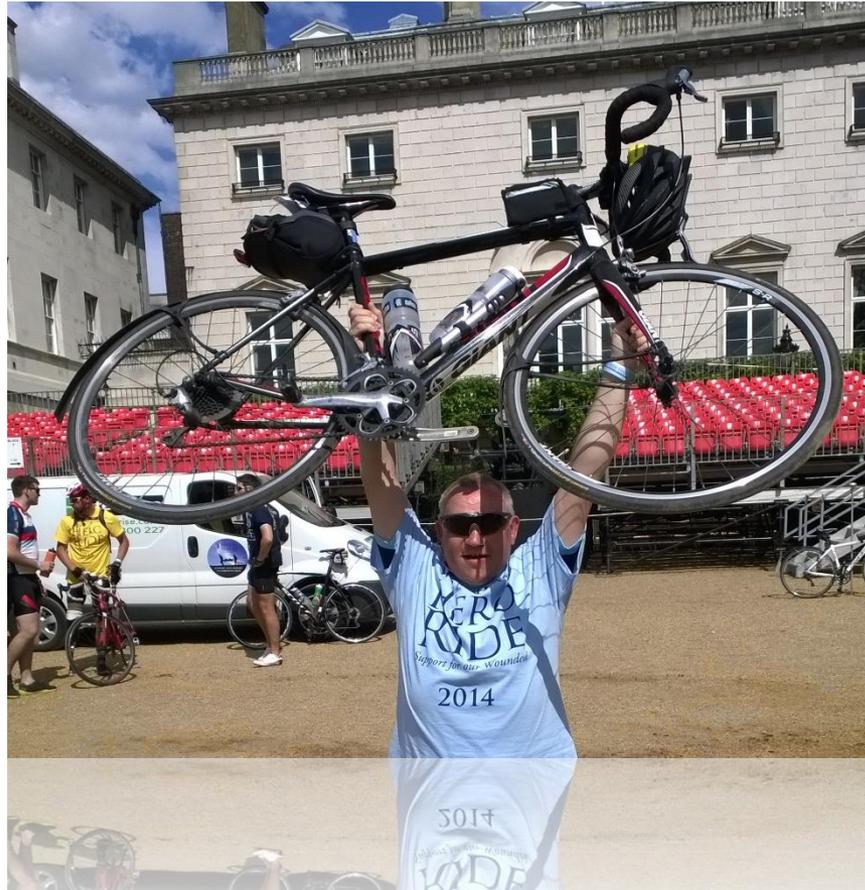
- This is from a very partial viewpoint

Summary & thoughts

- ## Go for it (or use someone who has 😉).

- You really should go to O365 if you are heading this way

- SQL Azure becomes a really good idea

- Note what you can do with Microsoft Partner Network:

  - Gives you O365

  - $150 credit per month for Azure

  - Option to buy Access Pack and get most of your software needs

Help for Heroes

- I'm (still) doing my 9th bike ride – 350 miles from the Normandy Beaches to Paris in June.

- If you would like to donate – http://bit.ly/pjb2019!

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