Q - How much of the work, like calculated columns, should be done in Sheets, and how much in the appsheet interface? Should sheets be purely a dumb table kind of place? - Laurie Nason

Ans (Praveen): It depends. This is a <u>good resource</u> for general guidelines on app design and (a subsection of it) spreadsheet design to play well with AppSheet. I generally advise customers to put complex data calculations close to the data (eg: if you are doing some data aggregation). The general problem with that is that the formulas will not be recomputed in the apps (which are often running disconnected in devices or browsers). They only get recomputed when the changes made by apps are synced. So if you have a table that never gets changed in the app, and there is a formula using the table, its fine to do it in the sheet. But I find most of our customers prefer to put their formulas in AppSheet if they can.

Ans (Christian): I don't believe there's a set rule. You might like the benefit of using a <u>virtual</u> <u>column</u> in AppSheet due to its ease of use. If you do use a calculated column in Sheets keep in mind that that would be a read only value from AppSheet's perspective.

Q - What about primary keys - I have managed to get sheets to insert one, but I also have to have an on edit function for when adding records manually - Laurie Nason

Ans (Christian): AppSheet uses row keys in a similar way to primary keys. Keys can be derived from the data or generated. See: https://help.appsheet.com/en/articles/1023086-what-is-a-key

Ans (Praveen): right, this can be an issue. Within AppSheet, there is a convenient UNIQUEID() function to stick in unique key values. We don't make it easy at the moment to do the same thing if you update the data manually. We should! There's three broad cases and we handle two well: (a) all the data is already in the sheet and the app is being used for updates only, (b) any new data is only being added by the apps, (c) the case we don't make easy for you -- new data is added both in the app and directly in the sheet.

Q - Should we use appscript in the background behind the sheets to populate calculated fields automatically? I did notice however, that inserts into sheets do not cause on edit triggers to fire - Laurie Nason

Ans (Christian): Using Apps Script to populate data in a sheet is definitely doable and if you're also expecting to build an AppSheet frontend app to the Sheet, this will work, but keep in mind that there isn't an automatic way to have AppSheet update the app when a data change occurs in the sheet.

See: https://community.appsheet.com/t/sync-when-data-on-google-sheet-changes/26308/3

Ans (Praveen): AppSheet works best if you treat the sheet like a database. Use AppSheet formulas to do automatic computations for fields you want to persist. It is true that we use the sheets API and that doesn't trigger appscript onEdit triggers. Some customers have worked around this by using timed triggers and checking for change (not optimal).

Q - What about installable triggers in the sheets - is this a good thing, or does it cause issues when troubleshooting? - Laurie Nason

Ans (Christian): Assuming you mean using installable triggers with Sheets and AppSheet, this is possible.. For example you may have a time-driven trigger to update data in a Sheet. Again to see this data in an AppSheet app, you'll still need to sync the app with the data.

Ans (Praveen): if you are very used to doing your logic using triggers, it takes a little unlearning and relearning of a different paradigm. The more data changes you flow through AppSheet and the more you put your formulas in AppSheet, the more of a consistent experience you will see.

Q - I am a little disappointed that Google are not providing the use of this feature for free for paying Workplace/Educational customers. Any plans to change what is offered? - Laurie Nason

Ans (Christian): Thanks for the feedback! Remember that AppSheet still has a freemium model which allows for free building & testing prototype apps with up to 10 beta users.

See: https://help.appsheet.com/en/articles/969649-how-to-choose-a-subscription-plan

Ans (Praveen): No plans to report, but I hear you and will pass along your feedback.



MikeAs an early appsheet user... the tech is good, but the customer centricity makes it great. Loving that Praveen and team continue to be so genuinely user/customer focused. A real differentiator.

Thanks!

Ans (Praveen): Thanks Mike. Great to "see" you on this call.



Nicolas RaccuiaAlso an early appsheet user, Is there any plan to have a marketplace so that any user can share their Apps made through AppSheet to external customers?

Ans (Praveen): I answered this in the meeting. No plans to report, but this is a topic of ongoing discussion. Apps can obviously be shared already, so I'm interpreting this question as being

more about providing a marketplace for discovery and distribution.

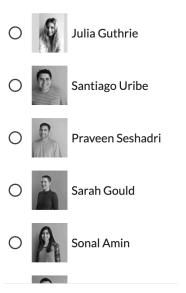


MikeThe barrier to entry is really low... and then... we find it works great so why leave??? it allows rapid innovation and quick value creation.



getdavemoore checking it out now as I want to make my gForms commercial. Can it handle images with radio buttons?

Ans (Praveen): Yes. Like this?



Done

See

https://www.appsheet.com/samples/A-timesheet-app-that-allows-employees-to-log-time-in-and-time-out, add an entry and go to the Name dropdown.

Btw, if you have an actual Google form, use the AppSheet addon (you'll find it in the addon gallery) to lift-and-shift your form to an AppSheet app. That provides a useful starting point of an app.



Wictor HansenWhat new integrations can we expect between Workspace and AppSheet now that it's been acquired?



Totally Unscripted: Google Sheets now has a Tools > AppSheet option. There's also a Google Drive and AppSheet integration coming... Ans (Praveen): We already do (a) sheets, (b) calendar -- but we can do better, (c) docs for workflow templates and saved reports, (d) google domains and groups for auth and access control, (e) trivial integration to invoke Meet from an app.

We are adding AppsScript as a webhook target. Wrt future things, I used to make "unscripted" promises with abandon but now I'm a bit more circumspect at Google:]. Some of this may be into the future but I think there are opportunities to go deeper with Docs, with Drive, with Meet, and with Calendar for sure. Some of the automation work we are doing has natural opportunities with Mail and Chat as well. Not sure what fraction of this we can explore and when. Send us your feedback at https://community.appsheet.com --- it is important for us to understand what you want to see happen



MikeQ: How do you see the evolution of "No Code" and "Low Code". Do they co-exist, or does one eat the other?

Ans (Praveen): Personally, I think every platform in the world is becoming "low code" (because it is the nature of things to put in layers of abstraction and marketing teams seem to have latched on to it --- at least it isn't blockchain!). So I think the world of code is moving towards scripting, serverless functions, re-usable and reconsumable widgets that work in "low-code" frameworks. I just think no-code is a fundamentally different thing. It is aimed at a different audience (a billion business users) and it coexists with and collaborates with code/low-code. Now where they overlap (something that can be built either way, it will soon become very difficult to justify using anything else than no-code because --- why would you).



Totally Unscripted: If you would like to see the new Sheets/AppSheet integration Christian features this in https://youtu.be/baZDCdqVt7A



Mozart Alberto García de Harol heard there's a "free" hybrid version between Pro and business version for those who have/had app maker apps working, can you tell us about that?

Ans (Praveen): so this is a little outside of my purview but the gist of it is this --- we retired AppMaker at the start of this year. So we provided a special price promotion for those customers to start using AppSheet. Caveat --- I don't know if this is still ongoing. But here's the details: https://solutions.appsheet.com/app-maker-to-appsheet



Totally Unscripted@Mozart Visit AppSheet.com and pricing webpage. Then click Contact Sales.



Wictor Hansenthanks for a great show as always



 $\label{thm:continuous} \mbox{Totally UnscriptedThanks for joining in for this episode} \\$