Krish (products.snowpal.com) (00:01.026)
Hey there, hope you're doing well.

Welcome to Snowpal Software Development and Architecture podcast. In this podcast, we're gonna take a look at a couple of different apps and talk about a very specific topic. Here is what we're gonna talk about. We're gonna essentially compare the two apps that we're gonna take a look at the samples and see if we can identify any commonalities between them and sort of take the conversation forward. And to set the context to this podcast, at SnowPAL as a product startup, we have several different products. One of the things we do

One of the many things I should say that we do is build APIs and SaaS products essentially for other companies to consume The idea is that you shouldn't have to reinvent the wheel spend your time energy effort and take a lot of risk and actually Doing what we already have we have like eight different APIs at the time of this recording That run into thousands of endpoints. So regardless of what your problem is However unique you think it is and I give it to you that a lot of it is, you know You're gonna solve unique customer problems surely

even within the realm of those unique problems, a fair share of those problems or the way that you need to approach to solving those problems, has a fundamental sense of commonality. There's design patterns that can be established and we've actually established that and that's why we've implemented these APIs and published those APIs. So again, take a look at, I'll include links here so you can take a look at those APIs. I'm trying, I'm mentioning this here, not so much to pitch the APIs, at least we do that plenty of the times,

context for this podcast because it's important to know why we are kind of creating these APIs implementing them and making them available to you to get the complete essence of the topic that's related to this podcast essentially. So without further ado and with that said let me actually share my screen we'll just jump right in and if things a little bit unclear and hazy at this point it's alright you know by the end of this podcast hopefully

Krish (products.snowpal.com) (02:02.592)
hopefully I'm able to clear muddied waters there. Let me share my screen. I'm going to share just a particular screen because sharing the desktop causes a little bit trickier sometimes. Okay hopefully you can see my screen. What I'm gonna do, let me move this over here.

This is our app, if you haven't actually downloaded it to manage your projects, I highly recommend that you do so. We are not going to spend time talking about... Oh, let me actually... So I'm sharing this via QuickTime, so hopefully it records just fine. I haven't done this particular style of podcast before, but let me hope that it actually does a fair job here. Okay. I'm going to go into Instacart.

Krish (products.snowpal.com) (02:52.33)
and obvious by way of obvious disclaimer I run the engineering team at snow pal we have nothing to do with any of the other apps other than anything snow pal related we have no you know interests or investments at least as of this point and then the two apps that I'm going to share with you here the first one is instacart so let's take a look at that folks have used this great for but if you if you haven't because our podcast listeners are all over the world

This is a...

a food delivery app where you can order food groceries and then you get delivered to your homes. That's essentially what the app does. So let's look at it for a minute or so. You know you can actually go search for whatever it is that you're looking for or you can actually pick the

store. Let's say I pick Wegmans one of the grocery stores near our house that we shop at most of the time. So you can pick the product you can say you know what I want this organic milk.

Let me add it here two counts and I go get the coconut water If you live in the US coconut water is actually a whopping $10. Yeah, it's insanely expensive Okay, and then you go you picked it go to checkout Continue to check out

Krish (products.snowpal.com) (04:19.346)
Okay, you pick the time, blah, and you can make the payment, you can continue. Let's say, you know what, let me actually continue. This is gonna be like a test order that I can actually cancel. I'm wondering, maybe let's actually go to this.

Krish (products.snowpal.com) (04:41.422)
I need to make it over $35 so the delivery is actually, pay for the service. But still for the delivery to be free, it needs to be.

Krish (products.snowpal.com) (04:57.956)
Anyone got a check out?

I want to pick a time further out so I can actually cancel this order since it's only for demo purposes. Just going to pick a time and I'm going to click continue. Since this is just a sample order, I'm not going to add a tip here because we want to cancel this order.

Krish (products.snowpal.com) (05:22.71)
Otherwise you should obviously definitely want to appreciate the service and tip the folks who are helping us out here. I'm gonna hit pay

Krish (products.snowpal.com) (05:32.891)
that you know what

Krish (products.snowpal.com) (05:39.934)
It's just the last four of the God numbers, we're all right.

Krish (products.snowpal.com) (05:56.438)
Okay, please order.

Krish (products.snowpal.com) (06:03.758)
And then you can go take a look at the items that we ordered. It says, do you need anything else? You can pick if you want to replace some things. If we don't like for it to be replaced, so we pick don't replace. Otherwise, you can pick replace and pick a particular item, for instance. Right? OK. So this is basically a simple ordering experience. And then we can go back here. You can go to orders. And we can take a look at our orders, the one that's currently pending.

So that's the Instacart app as it works. Now let's go to a different app, right? So this is Instacart and I picked a store, I placed an order. I'm gonna get out of this app and I'm gonna go to say, Wegmans, which is actually the app for the store. Let me actually close this and open it back so you get the full experience.

Krish (products.snowpal.com) (06:53.926)
Okay now, you know it's again a different store, but you know if you come in here you only might notice, let's say you go.

Maybe you spot some similarities, maybe you don't. At this point, maybe you don't. You know, just because we are in the business of building software, and we look at just about everything

in life with these software eyes, if you will, we can spot things a little bit sooner than if you are not in the industry. But let's say you did not. At this point, I'm gonna fault you if you don't spot any similarities, even though there are things that you can watch out for. You look at, I don't know if it shows up as I'm expecting for it to. If you just look at the...

address bar here at the top and then you look at the address you know the search bar sorry you can actually see that kind of looks similar right but again how different can search look sure okay I'm gonna go here and let's look at the layout it's a carousel again a lot of this these are standard components you could argue if you're building this on say react native or flutter or even if it's a it's a Swift or Kotlin you can have these generic components so things

go to each of these items it's eerily similar this is a plus there's an item there's an image you know I don't know if you can see where I'm touching what I'm looking at this morning star the first item the farms the veggie fillet or something it has an image it has a prize it has this yellow highlight and text the quantity and then a plus sign I go here

It's very similar, isn't it? Now again, you might say that, you know what? How different can things possibly be? Well, they can surely be quite different, even within the realm of a mobile app, this is very, very similar. But let's keep going. Let's actually say, what did I order? Actually, I think I ordered milk and let's see, let's go to the.

Krish (products.snowpal.com) (08:55.782)
I picked coconut water and organic milk. So let's go look for organic milk.

Krish (products.snowpal.com) (09:10.754)
pick that same, not that it matters but I'm gonna pick that two of them. The next is the harmless harvest coconut water.

Krish (products.snowpal.com) (09:25.934)
Okay, we're gonna pick two of them, right? I think we picked three, I don't remember, okay. We needed $35 for the mini motor. Okay, now you kind of start seeing this. You know, I don't know if you are spotting more similarities. I wish I had done them sort of side by side. Maybe you can even try that. You go to checkout.

Krish (products.snowpal.com) (09:50.71)
Okay, this page is hard to miss. The similarities between these two pages, the one we just went through on Instacart and the Wegmans app here. So I choose Pick Up.

and then I can pick say a few days out. I can choose.

Krish (products.snowpal.com) (10:13.806)
You're gonna ask me...

Krish (products.snowpal.com) (10:19.414)
Actually, let's pick delivery because we picked delivery on the other one.

Krish (products.snowpal.com) (10:29.522)
And if you remember this page, the placing, the order, the delivery tip, remember we went here and we picked zero. The UI is slightly different, ever so slightly different. Oops, I think I picked the wrong one. Okay, save tip. But it's pretty much the same. And then you go here, I think it's gonna say, choose address.

Krish (products.snowpal.com) (11:04.002)

pick something else, continue. There's no delivery instructions. And then I can go place the order. Where did I pick the order for delivery time? Oh, not today, actually I wanna pick.

Krish (products.snowpal.com) (11:33.262)
Okay, I'm gonna place the order.

Krish (products.snowpal.com) (11:39.598)
These are two orders after I'm gonna cancel. We neither need milk or the coconut water. Sadly not two sets of those from this, not to mention the same store. Need anything else? No.

Krish (products.snowpal.com) (11:56.638)
Okay, if you had shown me this page and asked me, Krish, which app is this, I would have just said Instacart because this is exactly the same. There's literally no difference. All of this, you know, the navigation, only difference is this is specific to one vendor, one store, as opposed to all of them. So my order is in receipts. Let me go here. So there's a new order. Let me pick that particular order. And then if I go see the items.

We are on a Wegmans app and look at them side by side. It's exactly the same, items to be shopped, the font.

pretty much, right? The only difference that we're seeing here, to be honest with you, is that the Wegmans is an older version of the Instacart app, from what I can tell. The Instacart app has been upgraded, but not so much the Wegmans app. So this is an example of reusability. Now I have no idea how these systems, how these companies integrate and work together, but as a consumer, just looking at two apps, here's what I can speculate. This be merely speculation, but I mean, you tell me how far off the speculation is.

It is the same application, right, pretty much. It's a different version of it, if you will.

And you know, let's before actually before I go to the user interface Let's even talk server-side my you know, Instacart has a pretty high markup You know you pay a lot more per item and then you pay for Service annual fees delivery tips and it becomes a lot more expensive and I think if I had to ballpark the number I think it's about 30% more if you're spending $100 at the store You'd spend $130 give or take if you order through Instacart a lot of us still end up doing it just because it saves you time But it's very expensive

Krish (products.snowpal.com) (13:36.976)
So when we said, okay, let's try to go to Wegmans directly. So, and then we can just pick up because, you know, they have an option for you to pick up. So there you just go drive. There's not so much a drive through, but you go to the front of the store, you say you're there and then, you know, the helpful folks just drop it in your trunk and you're good to go. We thought that we're gonna pay the same prices.

as you would pay at the store, not so much the Instacart prices. Actually, let's do this, right? Let's compare. There's a little bit of digression from the core essence of the podcast, but it's still I think it's worthwhile and maybe it's not even digression. Let's see how much we paid for this. Okay, this is $10.19 through the Instacart app. Exactly the same price $10.19 through the Wegmans app.

The organic milk is $5.79. Let me go here. And at this point, you probably don't even know which app I want, except the color is different. Instacart is green and the other one is red.

579 so that's the exact same price. We discovered, unfortunately after paying the same thing multiple times, that the price is exactly the same. We thought okay given that Instacart is not

the provider, it's a company in the middle, they're gonna have to take more of a cut every step of the way. So the product is more expensive, but if you're buying it directly from the store it's not. That's not the case here. So this tells me that the backend is probably the same as well, right? The data, the value is coming out of,

imagine I assume incorrectly so that this was actually different that you're You know when you Go Buy that at Wegmans directly through the app You would actually pay lesser because the store is selling it directly to you and they were just providing an additional service But not so much this looks like the integration is even more deeper There is no this is this is a bit bizarre to me I would have expected for it to be cheaper and customized to the store path I'm not saying it should be exactly as what it's at the store

Krish (products.snowpal.com) (15:32.816)
it's $5 at the store in Instacart just $5.79. I would have expected this to be like $5.29 if you ordered through the app because somebody is actually taking the pain to go around the store, pick up these items for you. They could do that for free because they are actually benefiting from your purchase at the store.

but even if they did not want to and they want to have the additional chars, that's fine. But the fact that it's exactly the same tells me that they're integrating literally with the same backend systems where the values are also coming from the exact same. If it's a JSON file or if it's like protobuf or wherever the data is coming from or through, it's the exact same data, which came as a surprise to me. I don't know because I wonder if, I don't know if it's because Instacart doesn't have supports so wegmans, doesn't have a choice as much,

through and have them charge the same thing and if they did who's this money going to is I don't know I mean I don't care because as a consumer I still have to pay it but all of this is important if you're building software you know take examples here because this is you know I don't know how much of the back end is also being reused I reckon Wegmans is a groceries company they're not a software company so they're probably saying you know what I want to

Krish (products.snowpal.com) (16:48.704)
the software why don't you do it just you know we'll pay you and you know there's a cut there must be some commission that you know the vendor in this case Instacart takes as a provider for these purchases how their pricing model works I have no idea right because I know obviously but this is an example to go by one part is the backend there's three facets to this if you ask me let me actually stop sharing the screen so I can

Krish (products.snowpal.com) (17:20.622)
Okay, the way I see this three facets to this, one is the data. The data appears to be exactly the same here. We saw it, the prices are exactly the same. So it's coming from one place wherever that one place is. If it's coming from a persistence layer or a config, whatever, wherever it's, obviously it's not config, it's dynamic data. Things are gonna change, your quantity is gonna change, and I don't know how the pricing works, whether it changes all the time, or that's a standard static price for that product for a period of time.

somewhere. And then the backend systems are provisioned and implemented, probably running in the cloud somewhere that's managed by Instacart. Again, these are all speculations, right? Take it with more than a grain of salt. But this is what I'm going to assume as somebody who's in the business of building software. Or at least this is how I would do it if I were them. Now, they can actually sell that to multiple grocery stores, to Kroger, to Giant, or Giant Eagle,

because none of them are in the business of building software and they don't want to do it because if it's not your cup of tea, why bother? You know, do what you're good at and let other

people do what they are good at and integrate, collaborate, and so we can be successful as a community of businesses, which is exactly what we do at Snowpal. We sell these APIs either as SaaS APIs so you can pay by request, pay by monthly or annual subscription, or if you want to want us to provision it in your own infrastructure, we can do it, or we can create

a new sort of a VPC and create a

provision the exact same services that we have in infrastructure that we manage on AWS or other, or Google Cloud or Azure, but that's dedicated to you. So there's a number of different ways you can integrate our APIs. It's entirely up to you and your business needs. That's from an API standpoint. The example we just saw here was from a UI standpoint as well. They actually have these apps, because I downloaded the Wegmans app from the store, basically from the app store,

Krish (products.snowpal.com) (19:26.264)
Instacart is going to have to actually have a version of it built and deployed and provisioned for these for Wegmans as a company. So Wegmans doesn't have to build this app. So it's not just selling services on the server side like SaaS services which I have to believe they probably do as well from what we have seen. But they're also selling I'm assuming again licenses to their application so they can rebuild it have a version of it because again it's not caught up.

version of Wegmans that I'm seeing is certainly behind because Instacart used to look like that months ago not so much anymore. So how they do the upgrade plans I have no idea. So they're going to have to catch up to it. They're going to have to sell upgrades probably to Wegmans in these grocery stores. Now they actually selling software not just as a service but actually I reckon as a licensed product. They're saying you know what I'm going to

Krish (products.snowpal.com) (20:24.88)
and however whoever ends up managing it, improving it and what not is how their relationship essentially works. Now that's the thing that caught my attention was that it's almost like they took you know I'm not saying they took our business model there is a business model that's out there that's very similar so it was a pleasant surprise to me that larger organizations they are bigger than us. Larger organizations are actually you know using our business model which is the which is which has

day one and let me go back to sharing my screen again here let me share my screen okay now let me get out of the these two apps and let's get to say the snow pile app for instance

So we are, you know, our app is a B2, from a B2C standpoint, it's a project management app. You can manage your projects at school, at home, at work, wherever it is that you wanna manage. And everything in life can be looked at as a project. If you're doing travels, you're a YouTuber, you can create your travel content, plan your travel content around as a project. You know, if you're Harold Baldr, you know, I believe he's one of my favorite YouTubers. He's currently in beautiful Italy. He's planning a trip to Italy,

content around his trip and plan that trip, right? So it's a project, long story short. We also integrated our courses into our app not too long ago, right? We launched our education platform on the web and we integrated that into our app. Now we publish our courses, we collaborate with the other course creators so they can monetize the sale of their courses by having a relationship with us. We provision, we manage everything from a platform standpoint.

that the course creators have to do is create the course and just worry about the content of the course that they create. Now, this is a couple of different products integrated. Now imagine if you wanted something like this. What if you're building a mobile app that deals with just

courses in entirety? Just as an example, you're like, hey guys, you know, folks, we don't wanna like rebuild. That's not our core business. Can you make your app available to us or a version of it? Can you build one for us in quick time so we can actually build something like this?

Krish (products.snowpal.com) (22:42.704)
We want something where people can go, look at a course preview, I can click play here, I can turn it around.

Don't know if it's actually showing it. It's showing it on my screen. Maybe it doesn't project it here. Okay, so and then you can make the purchase of the courses. You can go back to courses, search, find your courses, the ones you're looking for. Let's say I go here and I type AWS, it's gonna pull up all the AWS courses and so on and so forth. Just an example. Or you could say, you know what?

I am actually interested not so much in courses, but in the other aspects of it. And maybe it's nothing to do with projects per se. Our solutions are very generic. So you can purchase the app and we can build, in the case of Instacart, it's in the business of groceries. So it's probably very similar. It's exactly the same business. And maybe their solution is implemented specifically for food businesses, because it's very food specific and food centric. Our app is pretty generic.

business or a fintech business fintech app using our underlying you know design patterns and components right I can go in here I can go look at you know different pieces of content I don't this is like production data it's my app I don't want to click through something that I cannot share here but there's plenty of you know features around what you can do on our app and you might be like you know what I actually like everything about this and I'm going to solve a different problem then you can work with this to actually have us build

But we don't have to do it from scratch because we have all of this functional. Imagine what the turnaround times might be, how quick it would be for us to do it, as opposed to you hiring, staffing a team and getting the expertise and building these mobile solutions. If you're a software company, it's still going to take you a fair bit of time. If you're not a software company, it's going to take you that much longer. And it just depends on your team, your expertise, what you've done in the past, yada, yada. So that's

Krish (products.snowpal.com) (24:40.982)
the gist of it and it's actually, it was very interesting to me to see that Instacart and Wegmans had done that and I use Wegmans, you know, we purchased there so I can tell. They cannot possibly be the only one. I'm pretty certain there's other grocery stores that are only starting to use it. Now, why do I have to rebuild what I have, what I need? I'm gonna just leverage your service so people can either buy through Instacart directly or go to my app.

to gain because they are making money through this process and they probably have several layers of commissions that they probably you know gain from this and from a vagueness standpoint it's still positive because they are in the business of selling groceries vegetables meat and juices and whatnot that's what they want to do that's what they're good at they're not necessarily interested or have the skills to even to build software have an IT team and it's not worth it and even they did how are they going to maintain and manage and improve upon

It's too laborious, expensive, and not the right way to solve their problems either. We have to agree, correct? So this is a win-win situation. And it's a beautiful example because that's, it resonated straight up with us at Snowmobile because that's us as a business, selling software that's difficult to build, it's complex to build, and we do, we do the heavy lifting. So you can get started, go to market in quick time, your time to market are gonna be slashed dramatically.

like 20% or 30%, not even like 50. I think we're talking more like 60, perhaps close to 80, 75% of your time is going to be saved. Certainly on the server side a lot more. And if it's apps that we need to build and provision for you, you're going to save a fair bit of time there as well. Just in the interest of completeness, let me, I should share one more thing just so this conversation is actually truly complete. Let me share.

Let me open a different window because this time I'm actually not going to.

Krish (products.snowpal.com) (26:47.003)
the mobile window. So let me share my screen.

Krish (products.snowpal.com) (26:56.03)
Okay, so you see our app here. So let's say this is our web application. We saw the mobile app. Now I'm just gonna log into the web app. You're gonna see the exact piece of content here. We're gonna go. You're gonna see API gateway, home and invoices. So you can see it's exact same content. I'm not making this up.

And then we have courses as well. And you can go to education, you can check out our courses, and you can purchase the courses through our web app too. So imagine you want to build a web application. You're like, you know what? I don't want to go about building the whole thing. Can you sell me a license? Sell us a license so we can take what you have and extend that to serve our needs, make the necessary customizations, tweaks, adjustments, and whatnot. Sure.

So the idea here is to be able to reuse what's already out there and not reinvent the wheel. So let's say you want something that has Kanban for instance. Imagine implementing a Kanban solution. You know, some of this actually gets even more complicated depending on the type of content. If I go here, I can share some more concepts. You know, this is like a Kanban interface. Imagine if you have to implement all of this, how much time is it's actually going to take you?

It's going to take you a fab bit of time a lot of time and depending on your team skills and whatnot So you work with us so we can you know, sell you licenses and maintain improve provision manage scale and whatnot And then I saw the other examples of the app it actually kind of connected immediately and I want to share that with you Hopefully this makes sense of you had a bit of learning here And if you're a company a software startup try to build you know, you don't over engineer You want to have your verticals?

be cognizant and aware of the horizontals that you can potentially build along the way because sometimes I've seen companies just build verticals not very with the horizontals, meaning the platform layers and dependencies and then it doesn't let them extend. And the other extreme I've seen companies go the whole nine years of making things super generic. So it's hard, you're not solving current problems immediately without verticals. So you're gonna have to draw the balance depending on how much money, time and skills you have, but you know, there's never a straightforward.

Krish (products.snowpal.com) (29:07.248)
it's silver bullet or a good answer make the best decisions you can with the information that's available to you at that point of time. Before the Sun starts hitting my face even further I think I should call it wraps on this podcast thanks for watching hit us up if you have questions and we're more than happy to partner with you make you more successful in the process and make you more successful in the process. Thanks and talk to you soon