

Speaker 1 (00:02)

So this is

Speaker 2 (00:04)

Regarding

Speaker 1 (00:06)

A 124 assistant

Speaker 2 (00:08)

Project

Speaker 1 (00:09)

Connect

Speaker 2 (00:11)

That I did an architected

Speaker 1 (00:14)

At constant global services That's a sick

you an idea about the project the entire idea of the project was to build a virtual assistant

Speaker 2 (00:26)

Good cool interact with customers and

Speaker 1 (00:30)

Using age Agentic AI basically

Speaker 2 (00:34)

Do actions

Speaker 1 (00:35)

It's my book tables place food orders

Speaker 2 (00:38)

Help customer to browse the menu

Speaker 1 (00:43)

Yeah

Speaker 2 (00:43)

Adam modify their account and then place their 4 orders

Speaker 1 (00:49)

Also to

Speaker 2 (00:51)

Involving complaints

Speaker 1 (00:53)

And feedbacks And also

Speaker 2 (00:59)

You know To any general queries they might have about the restaurant or the

Speaker 1 (01:05)

Hotel or you know

Speaker 3 (01:07)

Whichever entity we are talking about Very
implementing

Speaker 1 (01:12)

So the project was basically I need to go to
production at least the

Speaker 3 (01:17)

Thank you washing off the

Speaker 1 (01:19)

We were able to

Speaker 2 (01:20)

To do successfully the food ordering

Speaker 1 (01:22)

Which is also a integrated pet Puja third
point

Speaker 2 (01:26)

What DPO system or

Speaker 1 (01:29)

Kids and tracking Delivery frankly we also
were able to due to table booking
successfully

Speaker 2 (01:39)

And we've better

Speaker 1 (01:41)

But they will

Speaker 2 (01:42)

Management system

Speaker 1 (01:44)

Which

Speaker 2 (01:45)

The restaurant and may not manager would be having in their hand and allowed the bookings As per and then

Speaker 3 (01:59)
Had success

Speaker 1 (02:00)
Return the Chandrakari's feedback development And And again behind all

Speaker 2 (02:10)
And also

Speaker 1 (02:12)
Use of open authentication The use of personality So so

Speaker 2 (02:20)
But basically learn from the

Speaker 1 (02:22)

The user data

Speaker 2 (02:24)

And understand and find out their preference

Speaker 1 (02:28)

Answers the Like liking the most common day ordered food

Speaker 2 (02:36)

And so on

Speaker 1 (02:37)

So that users could also

Speaker 2 (02:40)

It was more personal and And the recommendation system we Right so this was the overall feature wise of the product

they get into the technical details we had a back end engine

Speaker 1 (03:00)

I just bet

Speaker 2 (03:02)

Sit on fast API python and huge turn normalised database the database being

Speaker 1 (03:11)

Basically

Speaker 2 (03:12)

And multiple tables for different domains like user management user personalization food order table booking the menu and then other administrative stuff like Yeah if it's this customer sorry should not sit use a management instead of customer manage Person will be using

which part of the application and so on so this was building the larger backed engine and yeah like I said this was built on python using fast AI And

Speaker 1 (04:02)

And we had created multiple tools for the agents to call and they were all basically APIs that did cut function to get the data from the

Speaker 2 (04:14)

Devi

Speaker 1 (04:15)

So we're integrated ped Puja at our party display so the data from pedpoja servers would fall directly into our database based on which restaurant is registered with us and from that data users will be able to browse the menu place orders and once

they place the order no Daughter independent Puja application no automatically send the order to the kitchen and also help in tracking the delivery of the Yeah on top of this back in engine we had felt onboarding front and we are also built a back of his reporting platform for restaurant owners or managers to see the statistics the salesman the total income that was done at least initially through this platform and so on so this gave a lot of information about the west the products in the restaurant or products and so this was basically made for the restaurant or the plan to extend it for hotels hospitals anything that you know had some sort of a booking or Ordering something like that involved the plan was the extended And Having said that

Speaker 1 (05:44)

Yeah so like I was saying there was a friend in to onboard them then there was also a back office suite entirely to show it reports and business intelligence and finance offer of the Sales and so on and then came the final one which is the conversational virtual assistant that we should called so the entire objective is to make sure this was a personalised customised so actual assistant so it knew first that allowed people to browse autonomously but once they were registered in our system it could identify who the user was choosing device Fingerprints and you know as soon as it identified who the person was it made sure that the conversation was more personalised

Speaker 2 (06:40)

That's the based on the previous browsing history we had a back in this one to coalesce

the data and understand what the user's preferences were and based on all these things what can we recommend to the user especially the main money making part of this was the food ordering part where you know our system would recommend things it would observe things in a very silent way without the user recognition This was the whole Keyhole idea behind the project for the Agentic AI layer of course we had August main orchestrator which

Speaker 2 (07:43)

First it noted where the intent of the user was classified from the conversation made and then it had a recent note based on the intent you know it sorry a perception was captured and the intent was classified then also entities were extracted this happened in the person And in the react sorry in the action note

basically droughted to the correct submole that it had to go to so we had different submoletics like table booking watch submole which also and then we had the ordering sub module that is a food ordering subdued and we had the complaints and feedback subdued so these were the subjects based on the features that we are available and Yeah so the you know the main orchestrator would do this it would you know understand the According to classifier intent and how to be correct sort model inside every sub module he also had another subordinator because inside every sub module there were different parts as well right like for example if it is a table working he was not just

Speaker 2 (09:13)

about working the table it was also about

modifying and dancing the table If you take food ordering was not just about food ordering we had to be able to browse the menu you had to be able to manage the car and then you know place the order so you know there were different other substits so every submole had its own intent classifier and orchestrated basically so that would classify the inter it would also extract the main entities from the conversation and it would also You know route pity correct sub Puja and sorry the many agents as we called it and the many agents were basically agents with capabilities to call tools so in all of this we were doing multi step state management as well and all mistakes were being checked pointed and reloaded from check pointed across every conversation they had the ability to call tools which were basically APIs that we had created and once they called the tools

they would get the output from the APIs
the tools at the call the agents would then
take that

Speaker 2 (10:35)

data and they would be given clear
instructions on how to understand the data
and return it back to the Basically we had
another entire separate module just for
responding called the response you know
module this response module basically had
LLM which was instructed here clearly on
how to behave like a vehicle right not to
have a very robotic conversation but more
on an intense like like a waiter it had to
have a conversation exactly like a way right
so this response agent would you know
sorry every some modules would basically
after the tool ball and everything give the
data and they context of what is happening
the intervention that was classified and

they use it conversation so based on that the response agent would you know speak like a way to the Use and in this you know in this process we also especially following we had the recommendation system to recommend foods in multiple scenarios so if somebody orders something what would go well with it or if they ordered something and

Speaker 2 (11:52)

that's not available what is the alternative recommendation and also there were some subtle upskillings these were mostly software engineering and AI engineer yeah so this was also thanked and yeah so the very first version of this Was ready for deployment Where people could successfully order food although the personalisation was not very Great here because we did not have user data but we

had Put system in place to personalise and on how to personalise so the chat were being stored in mongolibility and there was a black end engine which took these chats for every customer and you know extracted the right information to maintain the customer personalization data and from their hold out their preferences hold out their usual orders and so on and so forth to create more personalization yeah so this was the virtual assistant purely agentic AI virtual assistant Chatbot that was built and this was One of a kind architected the thing you know it was not just purely Agentic AI you know while

Speaker 2 (13:21)

building this it built a very strong backyard engineering front end to get the data from you know the initial sources or the onboarding platform proper reporting

system and also the conversation to make sure that we are getting the we were able to you know which is the main part of the product so we are able to interact with the customers and so