Digital Travel Agent

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# Introduction

Domain: Travel Information

* Holidaymakers today have so many options for all the different aspects of their trip: flights, accommodation, sights, dining.
* In the past, the only choice would have been the travel agent, but today people can opt for booking the entire holiday themselves.
* However, it is an arduous process, and takes some of the enjoyment out of the holiday. The trade off is you’re losing the expertise of the travel agent, and yet, you are also saving money by arranging the entire holiday by yourself.
* So, the question here is, can we make a digital travel agent/assistant using the OpenAI Assistants API? Can we integrate APIs to tie together the entire holiday booking process to include flight/accommodation/sightseeing/dining/taxi information, such that our assistant can help the holidaymaker to plan their entire trip?

Flights:

<https://developers.skyscanner.net/docs/intro>

skyscanner api only open to commercial partners

same as mindbody, phorest, opentable

aerodatabox, also useless as doesn’t provide pricing, only depart/arrive by airport or specific aircraft ID

'https://api.tequila.kiwi.com/v2/search?flyFrom=DUB&to=CDG&dateFrom=29/04/2024'

Looked into AsyncOpenAI, but they don’t provide anything for assistants, just chat completions

<https://airportcod.es/>

<https://api.tequila.kiwi.com/v2/search?flyFrom=DUB&to=AGP>

A screenshot of a web page

Description automatically generated

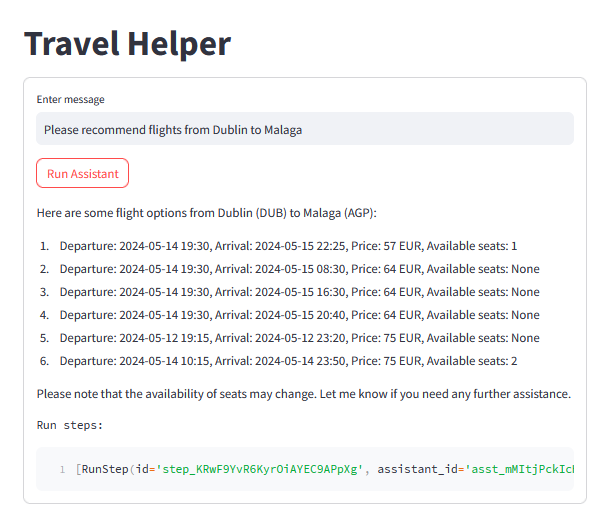
https://code.kiwi.com/articles/find-a-flight-using-kiwi-com-and-postman/

open source google-flights-analysis doesn’t work

tequila password: ^=4@cAc\*k.j"\_XV

Accommodation:

<https://developers.booking.com/demand/docs/>



After instruction change to tell it to specifically use the function I gave it should the user ask for flight info between specific destinations and/or specific dates:

A screenshot of a travel helper

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A screenshot of a computer

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# A screenshot of a computer program Description automatically generated

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For hotel searching, my function is multifaceted in that it allows searching for hotels, attractions, or restaurants, you just need to provide the right category. The function isa ctually called ‘tripadvisor\_search’, but the assistant is assuming there’s a function called ‘get\_hotels’.

I changed the function name to suit it, and then it works fine, where previously it needed to be specifically told the name of the function it should use:

A screenshot of a computer

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It can now also call a function for specific hotel information:

A screen shot of a computer

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I noticed it will break if the user just asks for flights to a destination without specifying where they’re flying from, so I hard-coded this to Dublin in the case that no location is provided. This is obviously not the best solution, in reality it would make sense to require the user’s location and then use that.

# Assistant Design: A Schematic View

# Added Value: More than Mere ChatGPT

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# Summary and Conclusions

# Acknowledgements

# References