PYTHON PROJECT: VACATION PLANNER

‘SUNNY SIDE UP’ APP

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INTRODUCTION

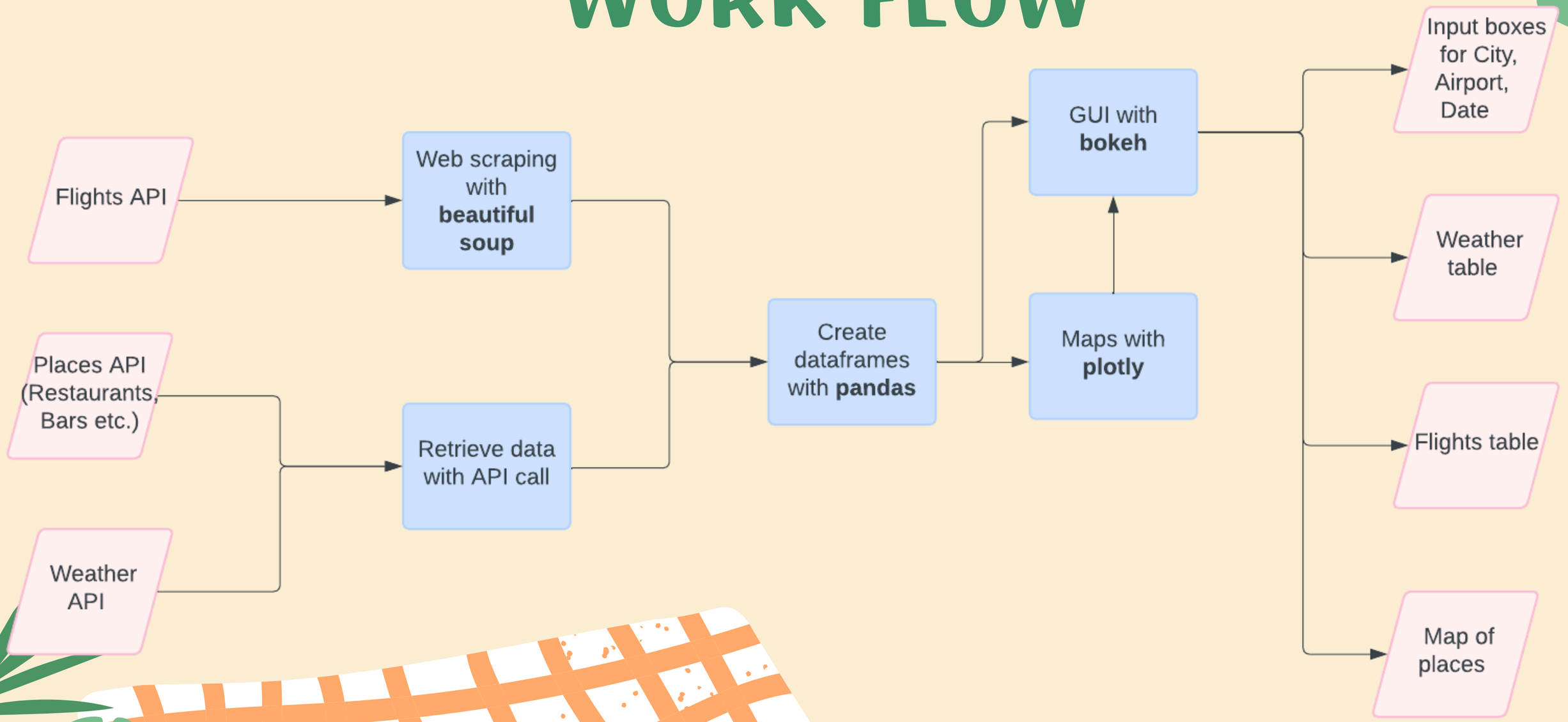
Task: Create a vacation planning app

- Vacationing for 7 days
- Tropical destination
- Want to explore clubs, restaurants, bars
- Weather forecast
- Flight details

Aims:

- User inputs city & airport, chooses dates and flight details are shown
- User can see a map of bars & main airports, as well as a table of the weather forecast & flight details

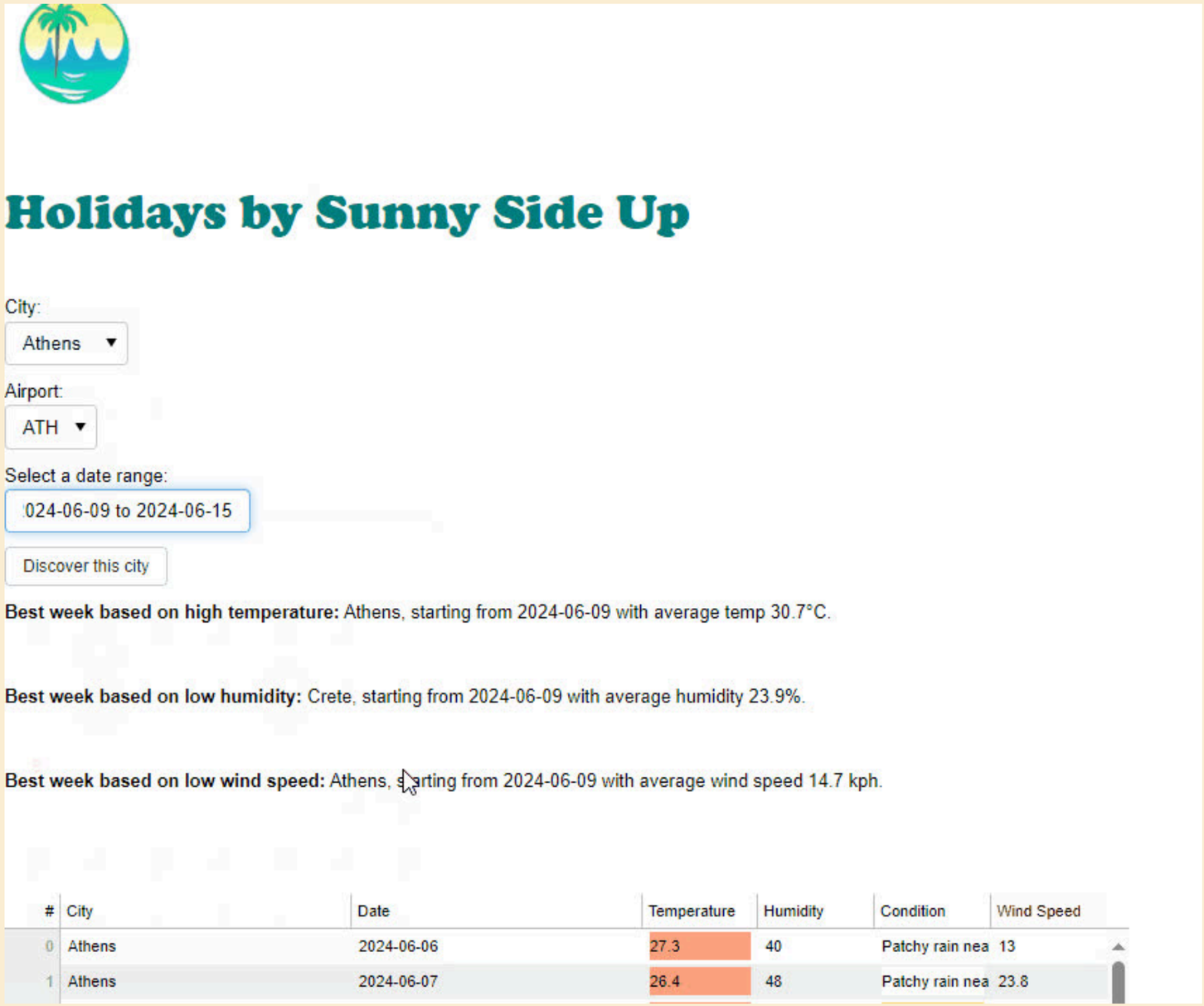
WORK FLOW


Flights API
Places API (Restaurants, Bars etc.)
Weather API
Web scraping with **beautiful soup**
Retrieve data with API call
Create dataframes with **pandas**
GUI with **bokeh**
Maps with **plotly**
Input boxes for City, Airport, Date
Weather table
Flights table
Map of places

HOW LLMS WERE USED

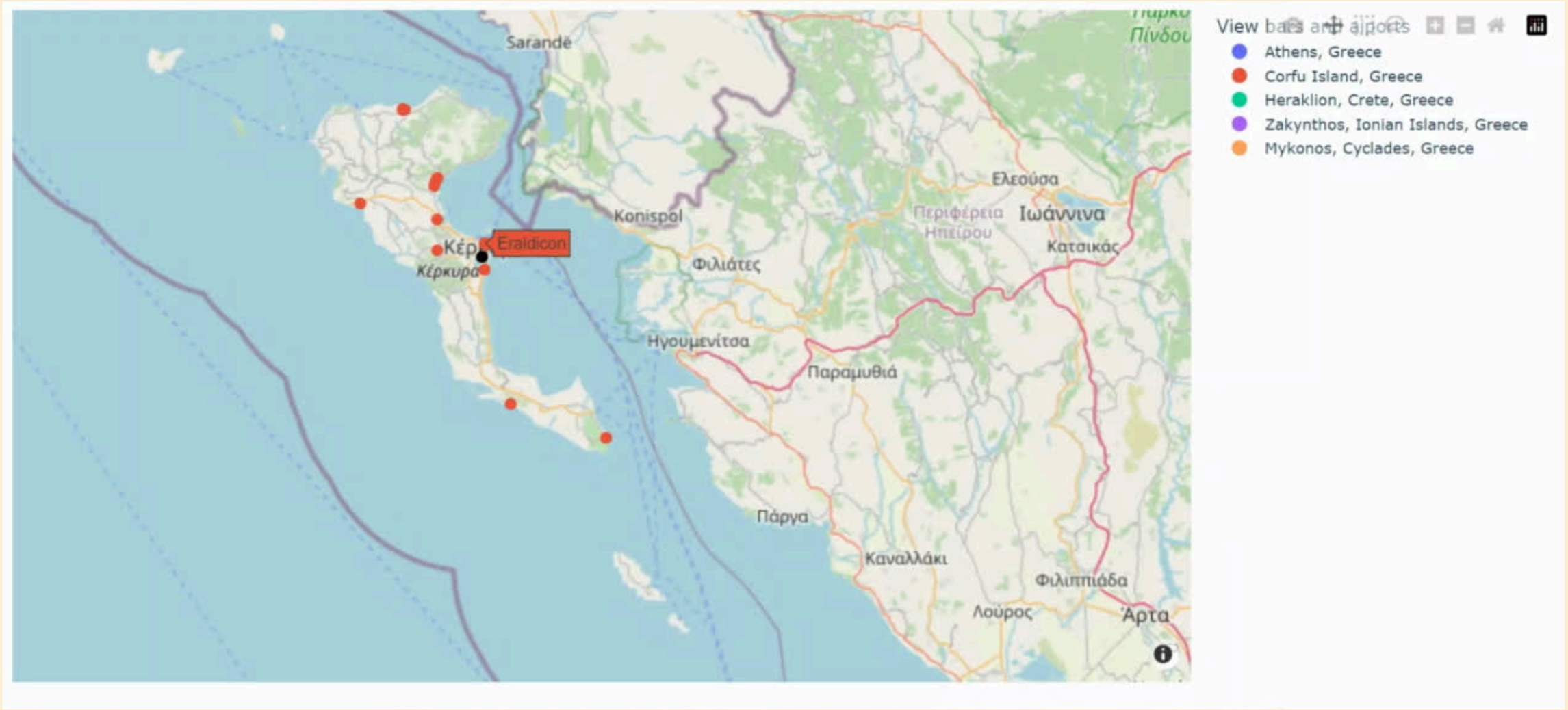
- OpenAI's ChatGPT:
  - First time creating GUI - became familiar with the Bokeh library
  - Connecting the API data and analysis with GUI
  - Researched best API for weather and places
- DeepAI:
  - To generate the logo

PROGRESS - GUI

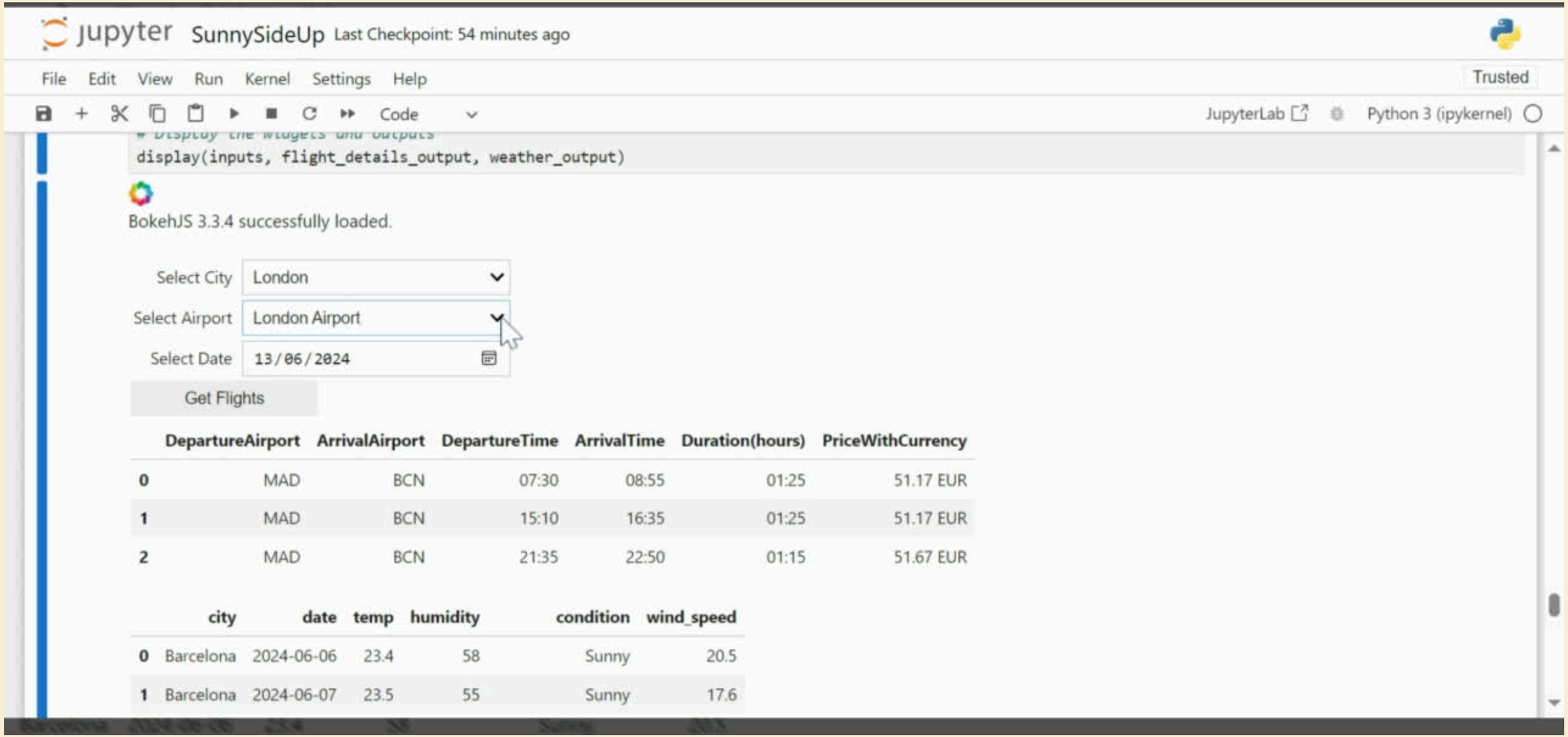


IF FOOTAGE IS NOT WORK, TRY THIS LINK:
HTTPS://WWW.CANVA.COM/DESIGN/DAGHWDTTXNG/UBDET2QUTUVHUCZFFRQLDQ/EDIT?UTM_CONTENT=DAGHWDTTXNG&UTM_CAMPAIGN=DESIGNSHARE&UTM_MEDIUM=LINK2&UTM_SOURCE=SHAREBUTTON

PROGRESS - PLACES API MAP



PROGRESS - INTERACTIVITY



	DepartureAirport	ArrivalAirport	DepartureTime	ArrivalTime	Duration(hours)	PriceWithCurrency
0	MAD	BCN	07:30	08:55	01:25	51.17 EUR
1	MAD	BCN	15:10	16:35	01:25	51.17 EUR
2	MAD	BCN	21:35	22:50	01:15	51.67 EUR

	city	date	temp	humidity	condition	wind_speed
0	Barcelona	2024-06-06	23.4	58	Sunny	20.5
1	Barcelona	2024-06-07	23.5	55	Sunny	17.6

*WITH A DIFFERENT DATA SET AS OUR WEATHER API DID NOT HAVE DATA ON GREEK FLIGHTS

CONCLUSIONS

- Overall, we needed more time to integrate the API data with the GUI
  - Our GUI works with ‘manually’ created lists and dictionaries but not very well with the data that we fetched through web scraping / API calls..
- Needed to self learn GUI as well as APIs
  - There are many frameworks such as Tkinter, Flask, Bokeh etc with their own mechanisms
  - More time is needed to become more familiar and make a well-informed decision on which framework is best

LESSONS LEARNED & REFLECTIONS

Start with a smaller scope (i.e. omit flight details until later)

Integrate the APIs and GUI section by section

Update your Jupyter Notebook (or make sure your group are all on the same version)

With more time we could potentially:
properly connect the API data with the GUI, add historical weather data/extended forecasts, optimise the data fetching, make the interface more visually appealing

THANK YOU

Questions!