



# AN INTERACTIVE DASHBOARD FOR SHANGHAI PROPERTY MANAGERS

LESLIE CARDONE

# **PROBLEM:**

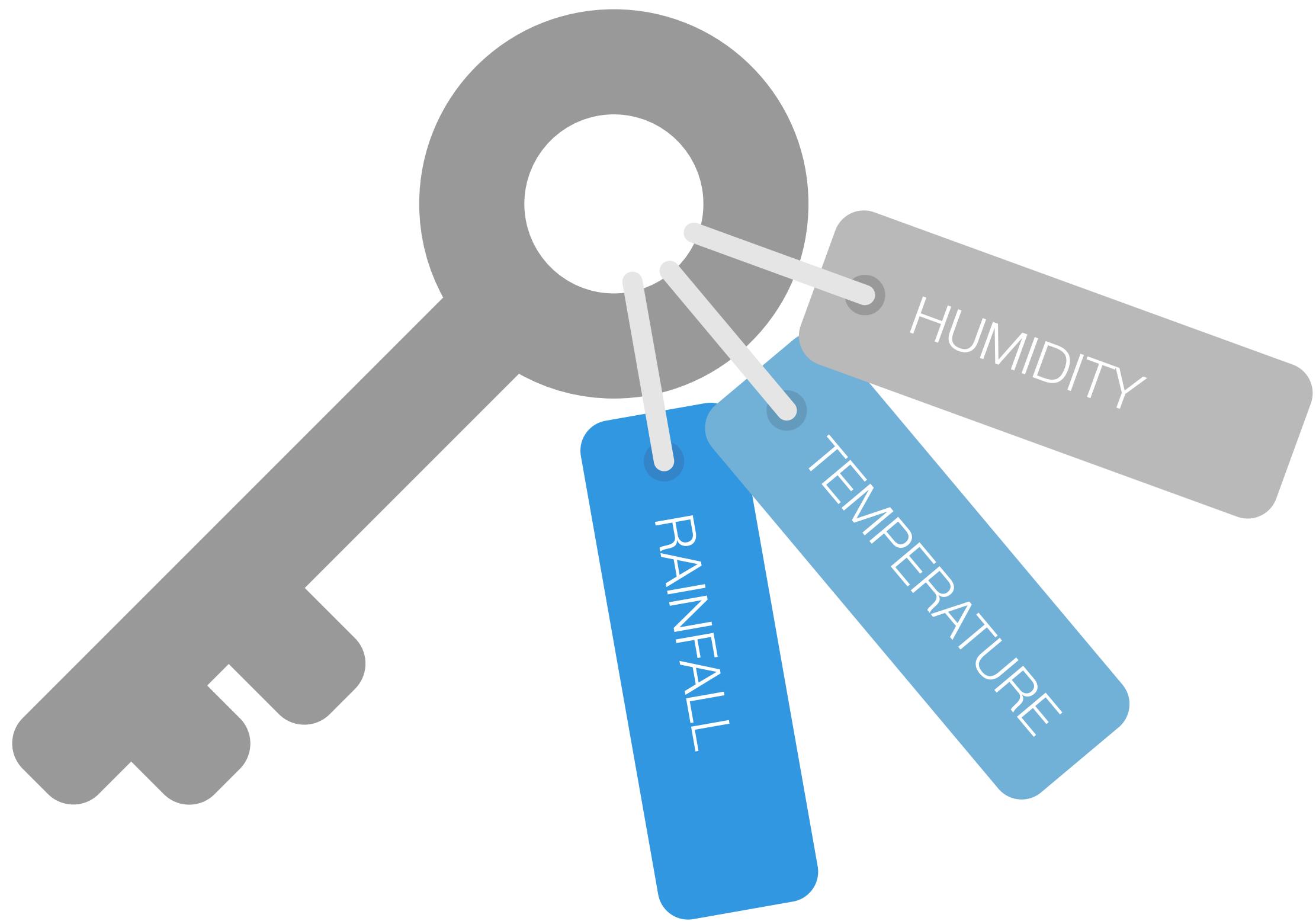
## **SHANGHAI IS HUMID**



A photograph showing a dense cluster of palm trees and other tropical foliage growing from a large concrete structure, likely a water feature or artificial island. The plants are lush and green, contrasting with the grey concrete. In the background, there are modern apartment buildings with balconies and windows.

**EXTREMELY  
HUMID**

# MOLD GROWTH



01

**HUMIDITY LEVELS AS LOW AS 55%**

02

**TEMPERATURES AS LOW AS 70 F**

03

**WATER LEAKS, CONDENSATION, OR FLOODING**



**GOALS:**

**CAPTURE WEATHER  
DATA THROUGH  
RESTFUL API CALLS**

**AUTOMATE A 24/7 ETL  
PIPELINE**

**SERVE DATA FOR PUBLIC  
CONSUMPTION WITH A  
WEB APPLICATION**

## GOOGLE CLOUD PLATFORM

Functions

Scheduler

Secrets Manager

Firestore



## OPEN WEATHER MAP

“Current Weather Data”

“One Call API”

## STREAMLIT

Python Client for Firestore

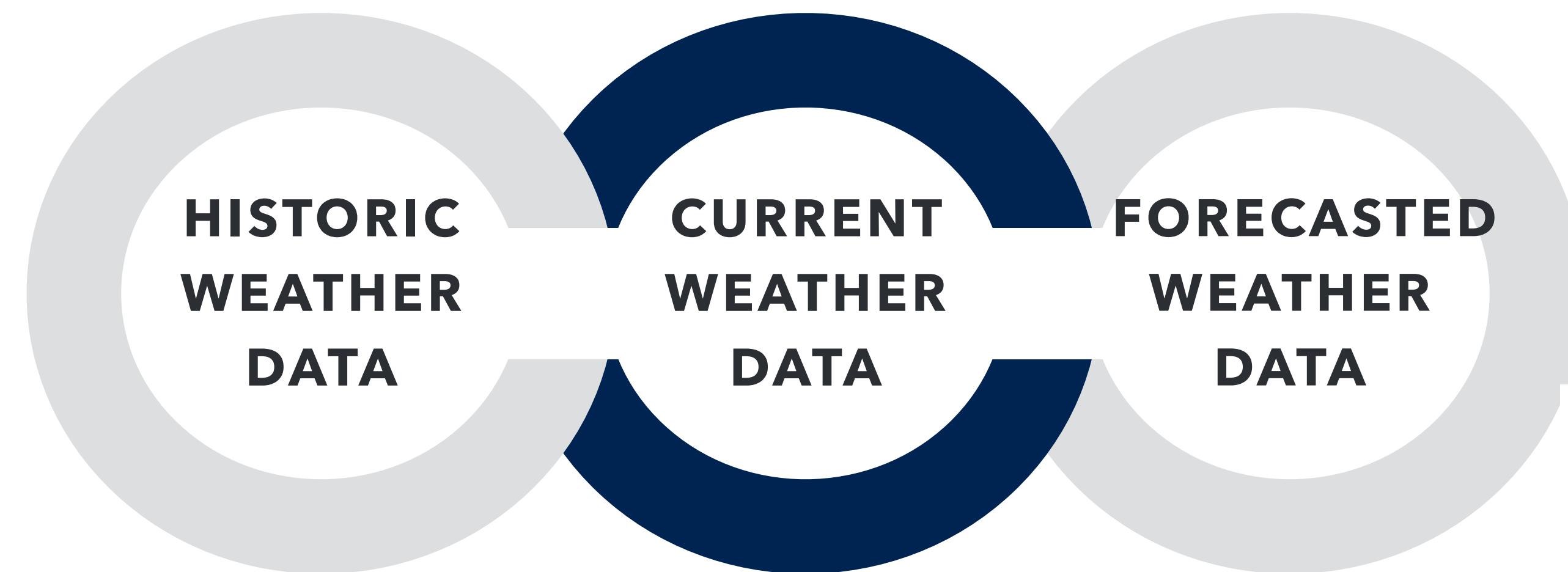
Pandas

Altair

## HEROKU

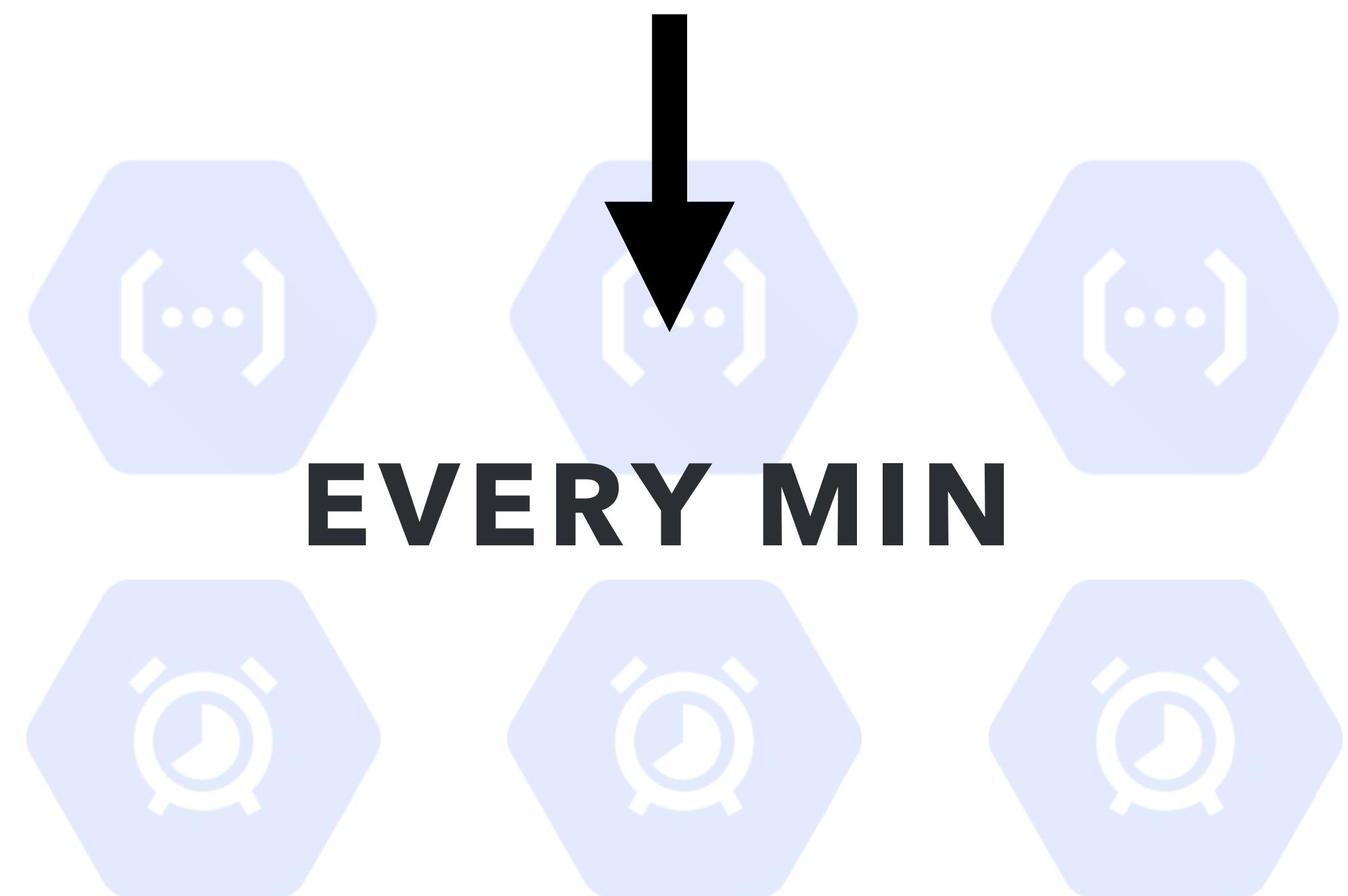
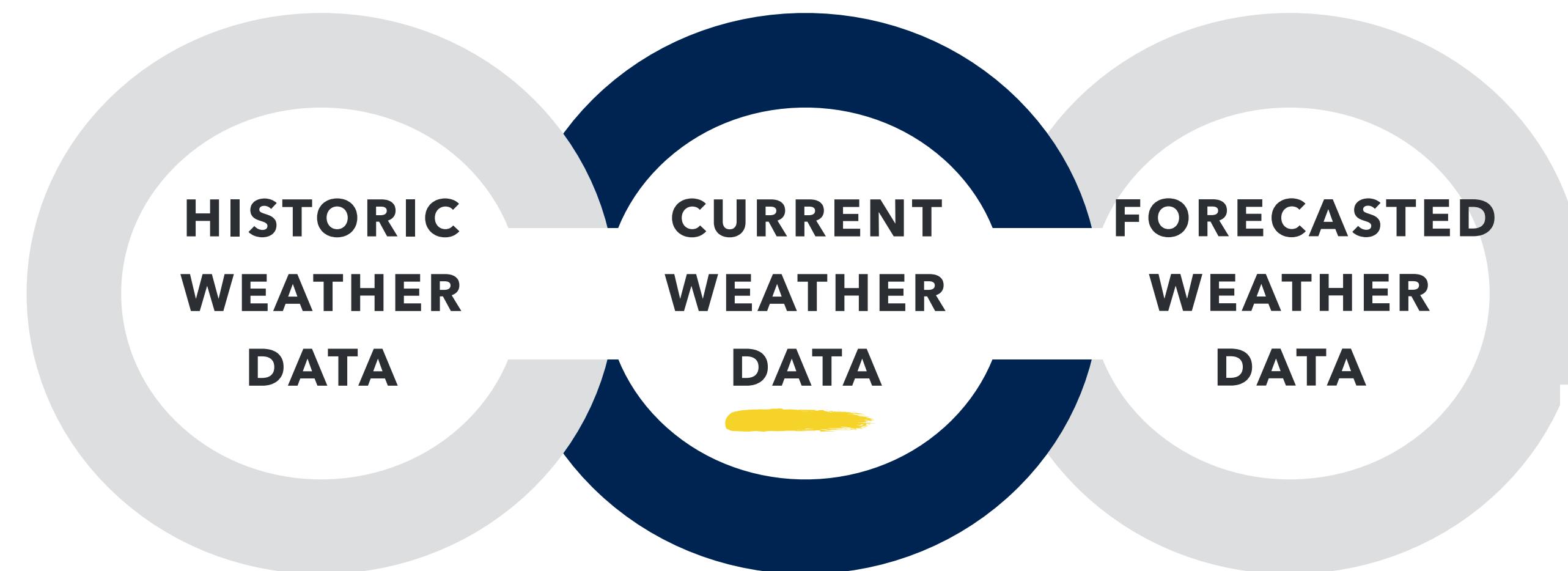
Deploy to cloud





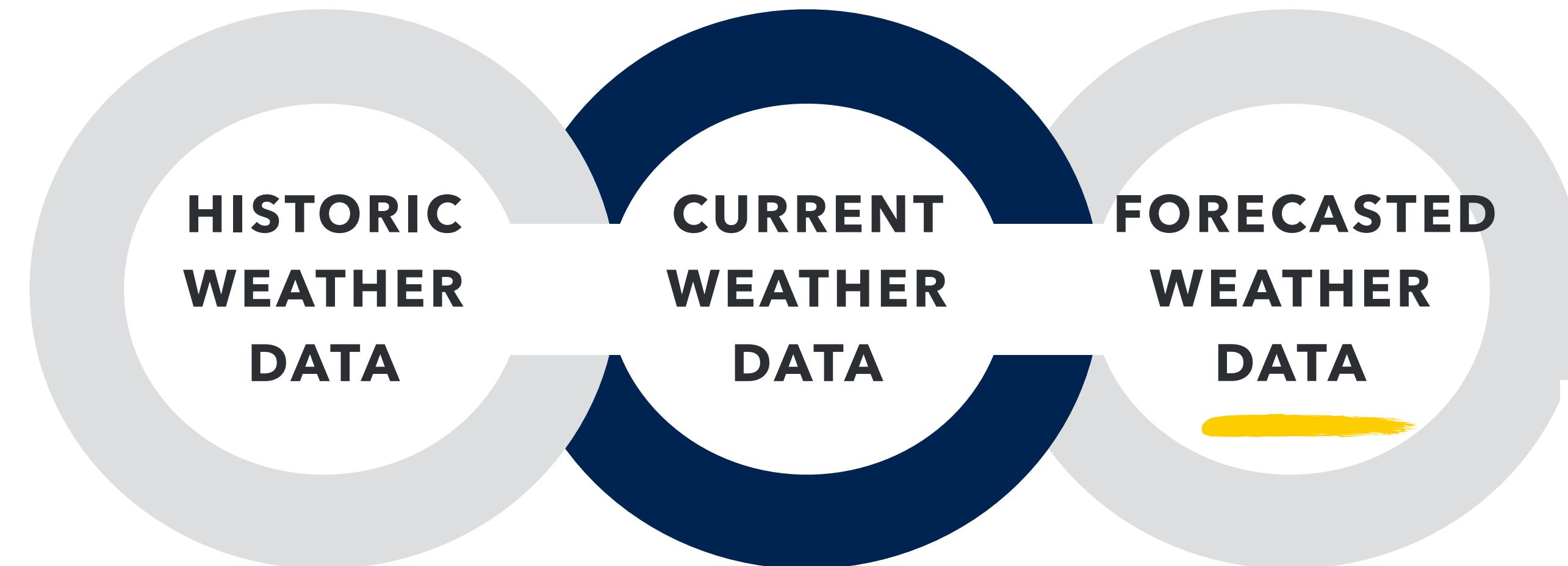
Cloud  
Firestore





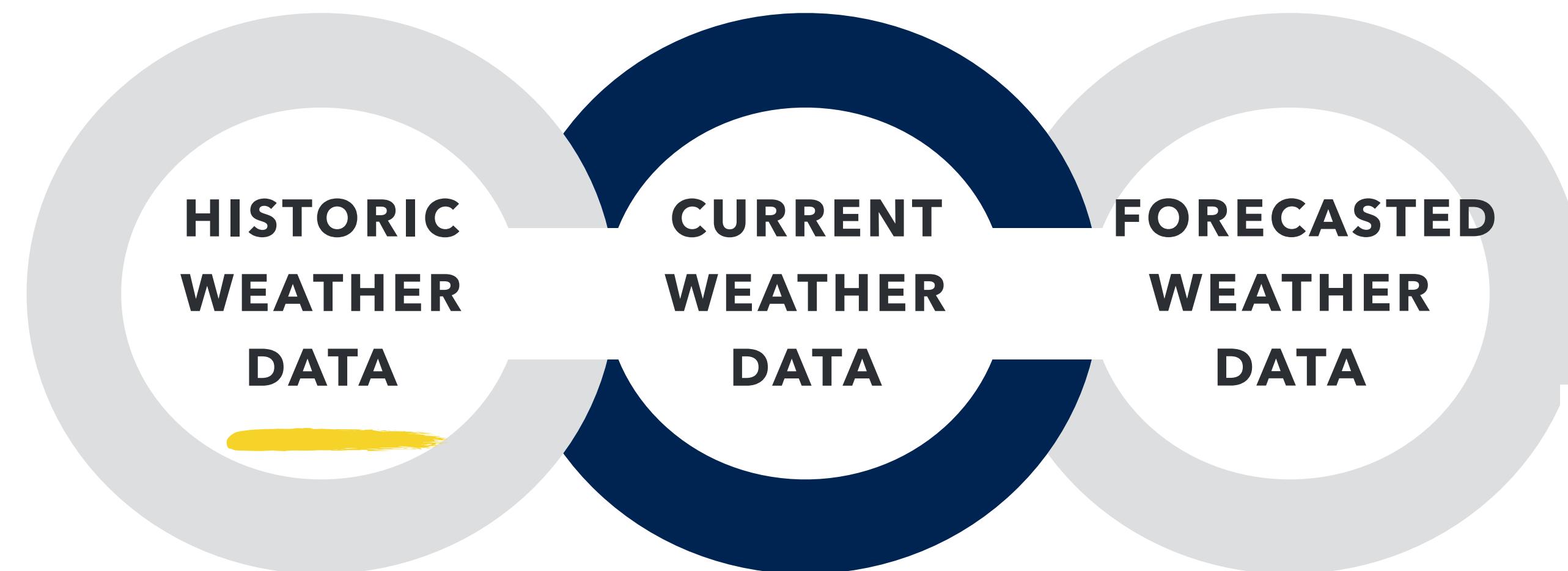
Cloud  
Firestore





Cloud  
Firestore





Cloud  
Firestore



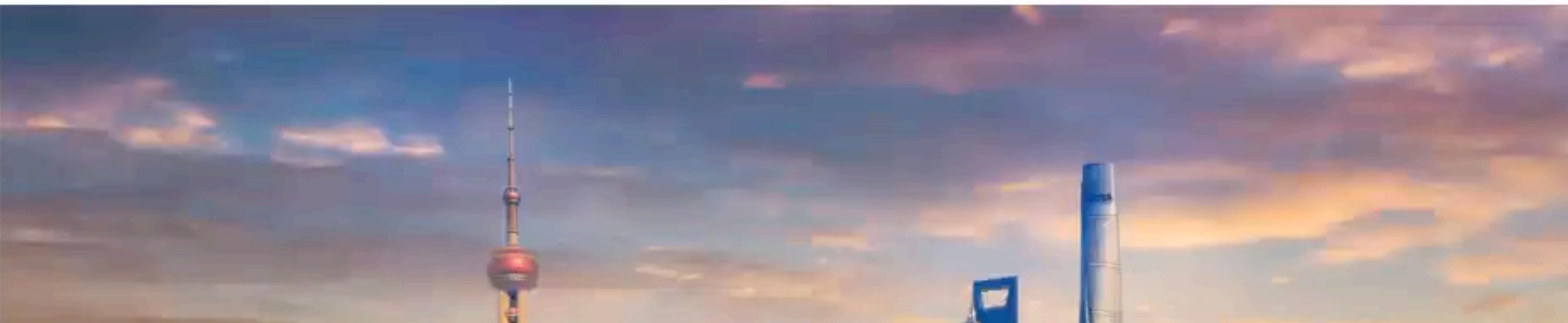


**SHANGHAI** on Tuesday, July 06, 2021 at 12:15

| Temperature | Humidity | Status |
|-------------|----------|--------|
| 33          | 55%      | Clear  |

**Visualize Humidity Levels Over Past 24 Hours**

[Visualize](#)





# FUTURE WORK

- 1. MAKE CLOUD FUNCTIONS IDEMPOTENT**
- 2. INCLUDE FORECAST DATA**
- 3. CALCULATE TIME OVER 55% HUMIDITY AND 20 DEGREES CELSIUS**
- 4. TRANSLATE INTO MANDARIN**

**THANK YOU!**