



# 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



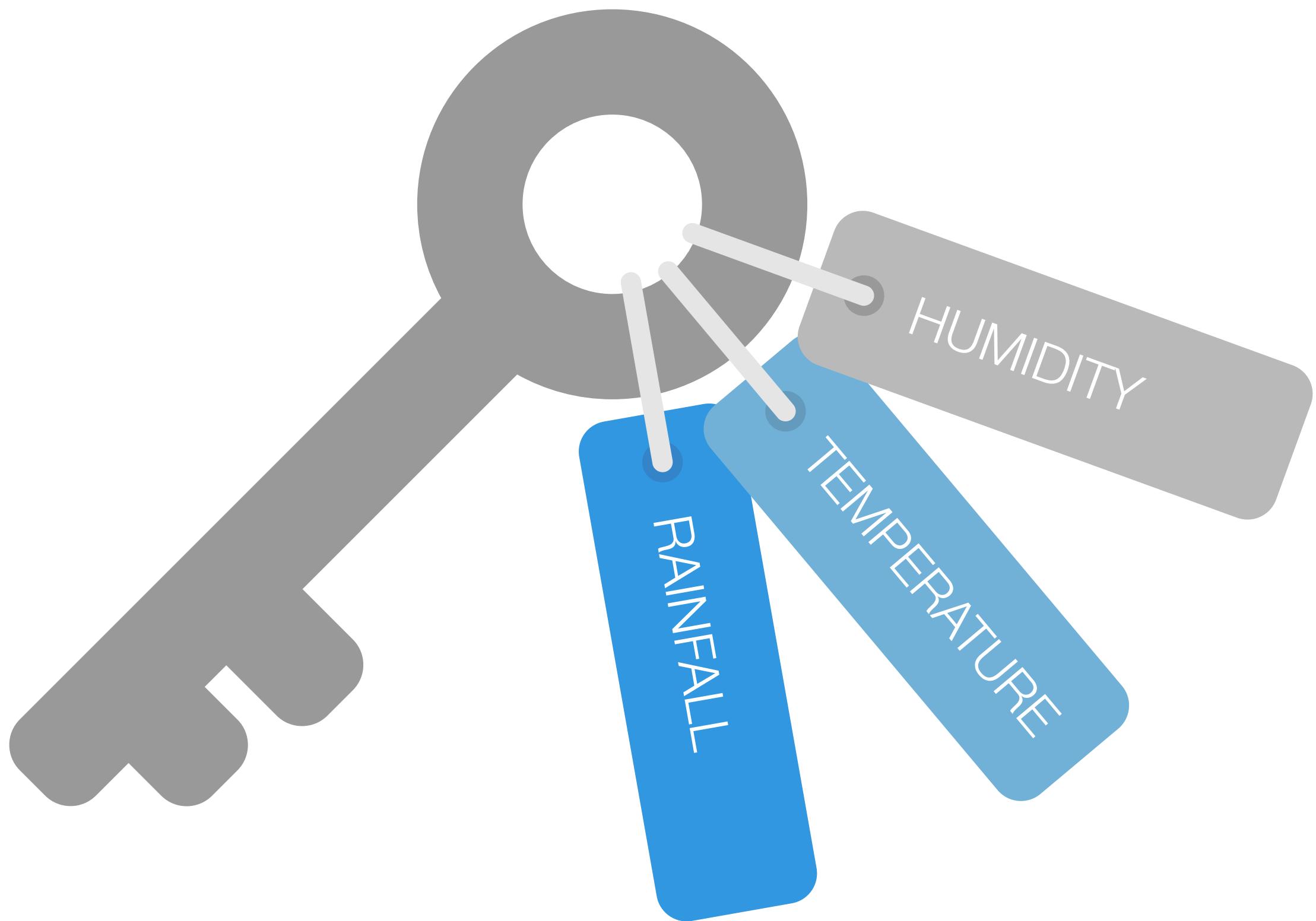
# MOLD GROWTH



01

**HUMIDITY LEVELS  
AS LOW AS 55%**

# MOLD GROWTH



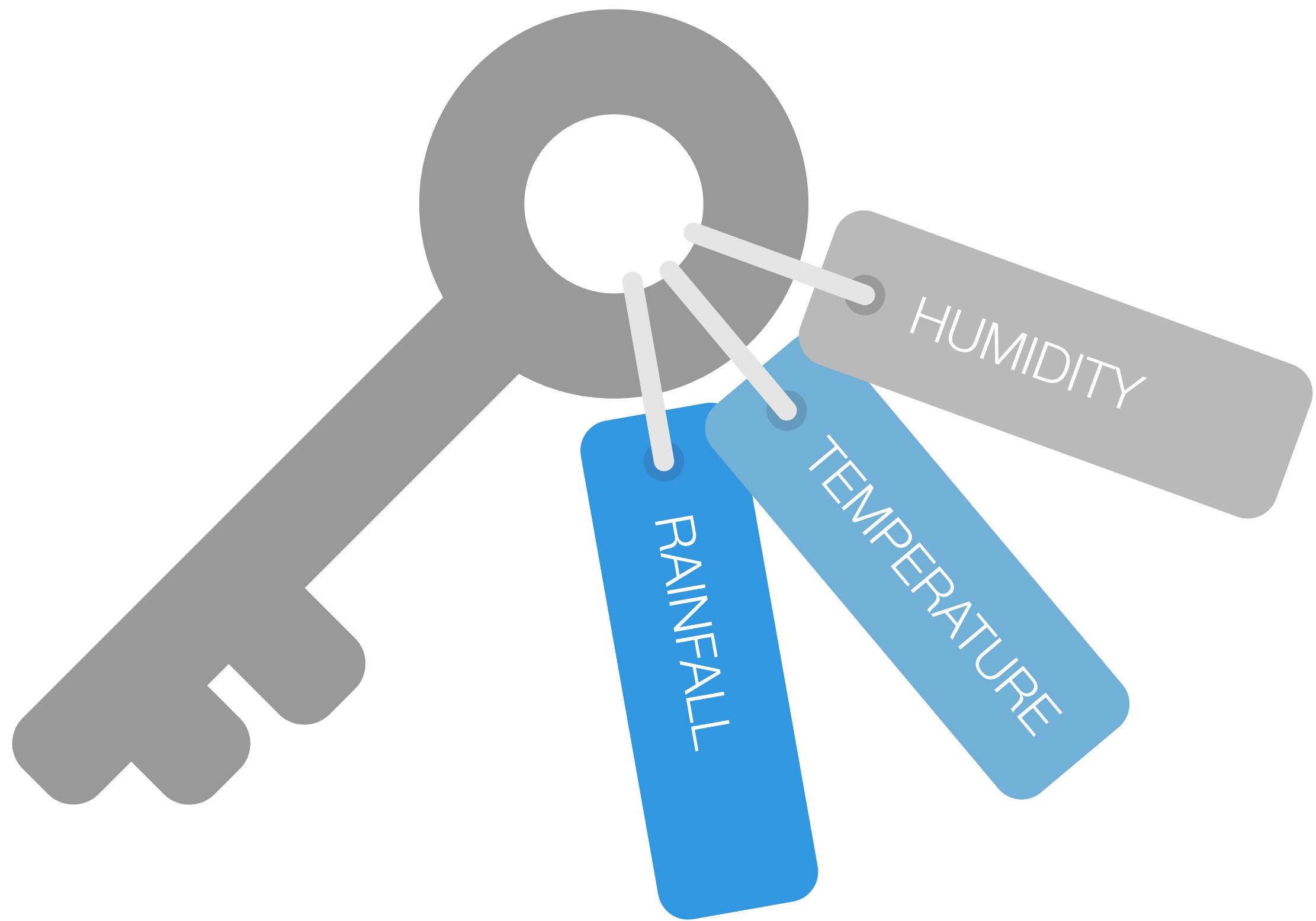
01

**HUMIDITY LEVELS  
AS LOW AS 55%**

02

**TEMPERATURES AS  
LOW AS 70 F**

# MOLD GROWTH



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**HUMIDITY LEVELS  
AS LOW AS 55%**

02

**TEMPERATURES AS  
LOW AS 70 F**

03

**WATER LEAKS,  
CONDENSATION, OR  
FLOODING**



# GOALS:



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**CAPTURE WEATHER  
DATA THROUGH  
RESTFUL API CALLS**



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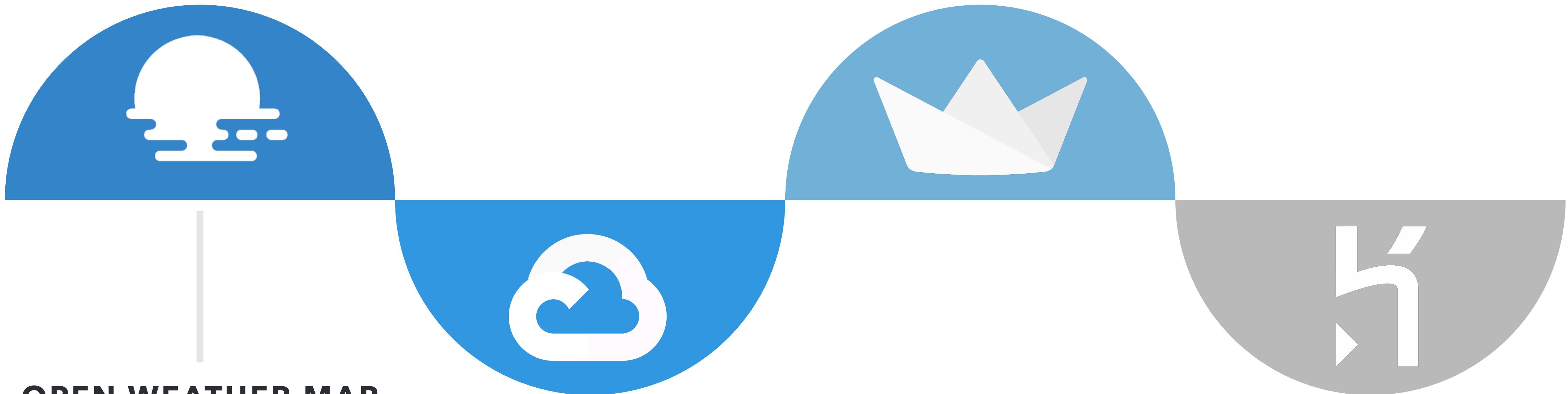
**GOALS:**

**CAPTURE WEATHER  
DATA THROUGH  
RESTFUL API CALLS**

**AUTOMATE A 24/7 ETL  
PIPELINE**

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





## OPEN WEATHER MAP

“Current Weather Data”

“One Call API”

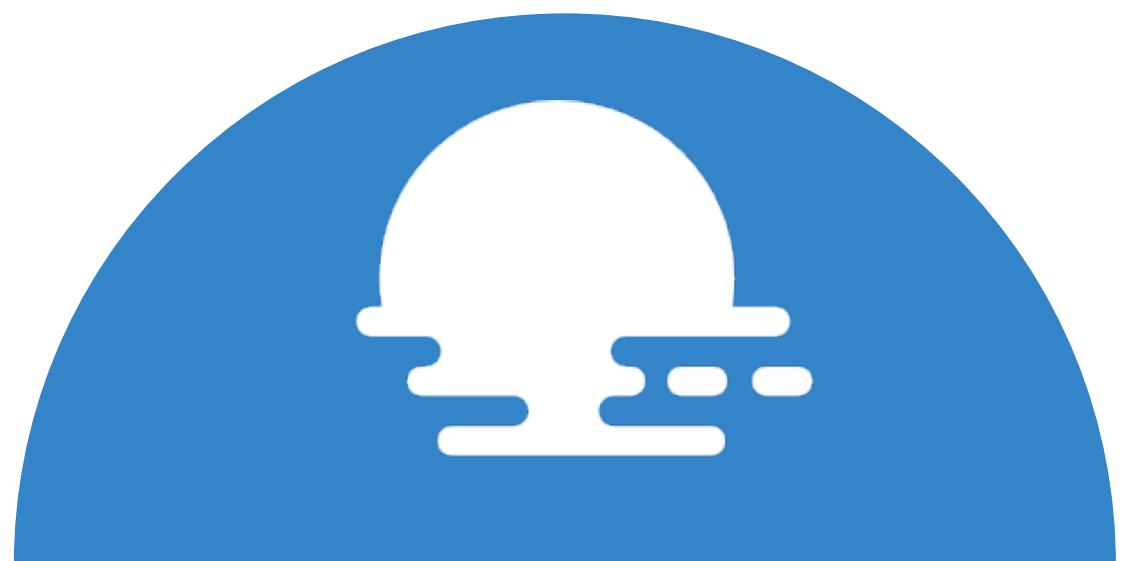
## GOOGLE CLOUD PLATFORM

Functions

Scheduler

Secrets Manager

Firestore



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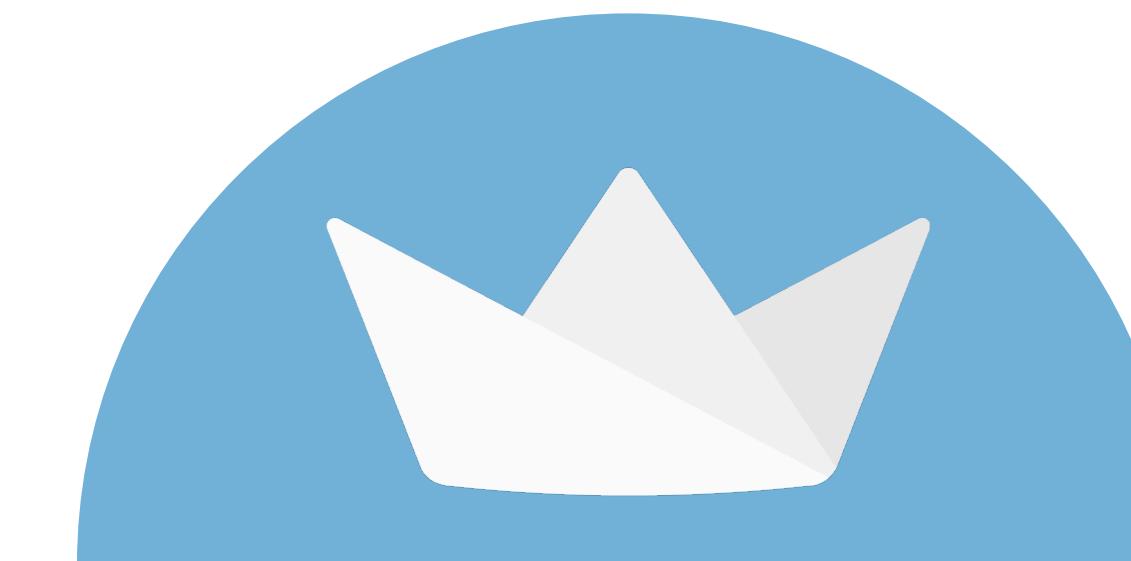
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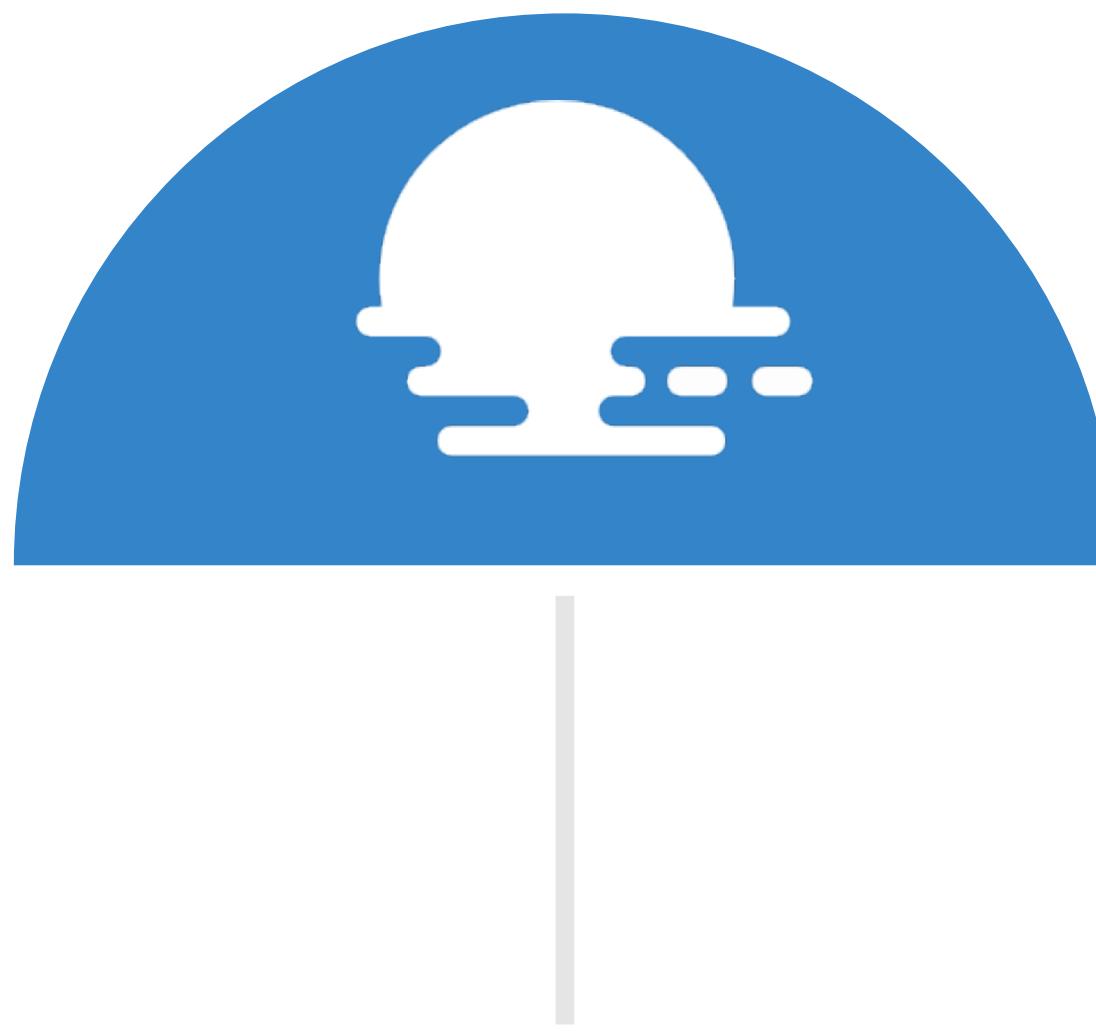
## STREAMLIT

Python Client for Firestore

Pandas

Altair





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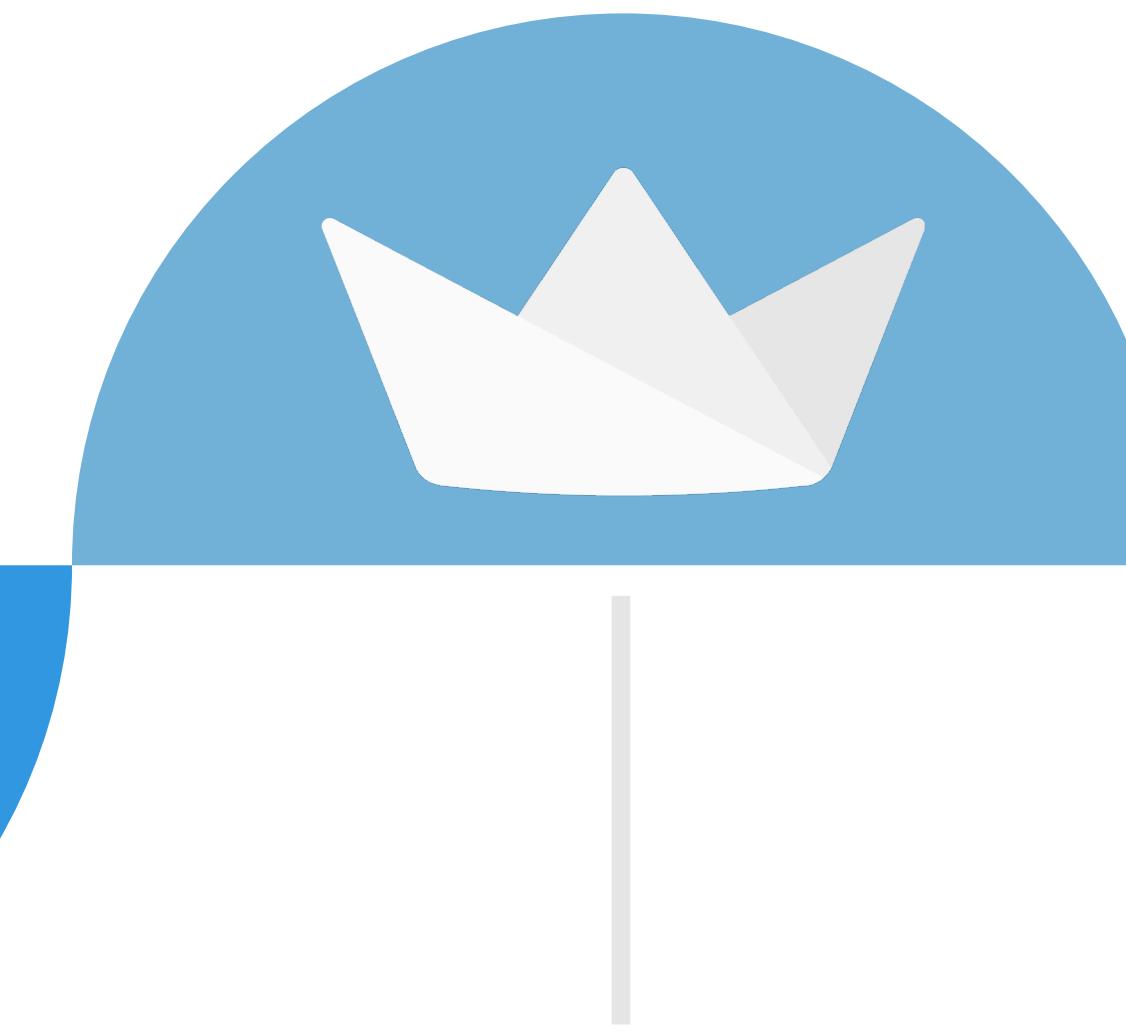
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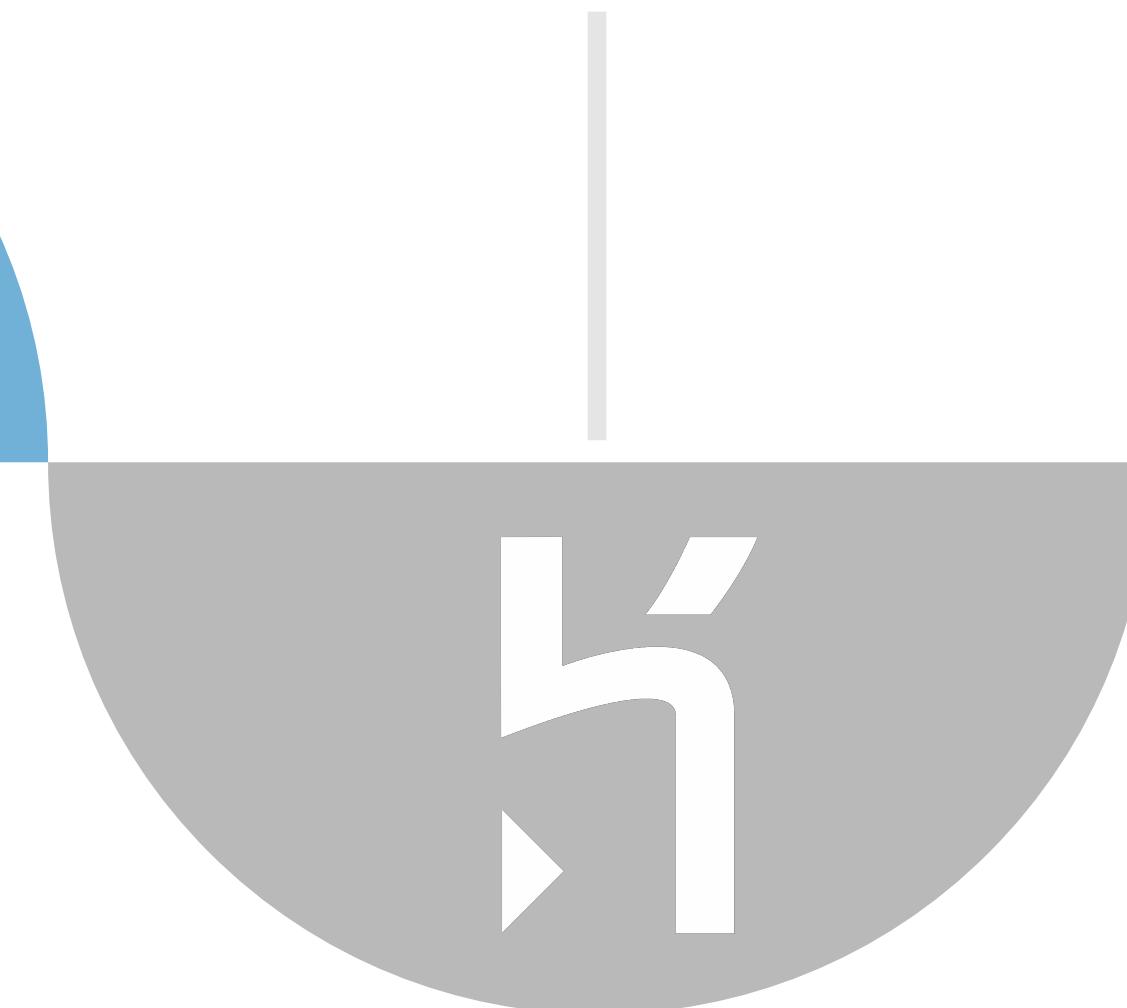
Python Client for Firestore

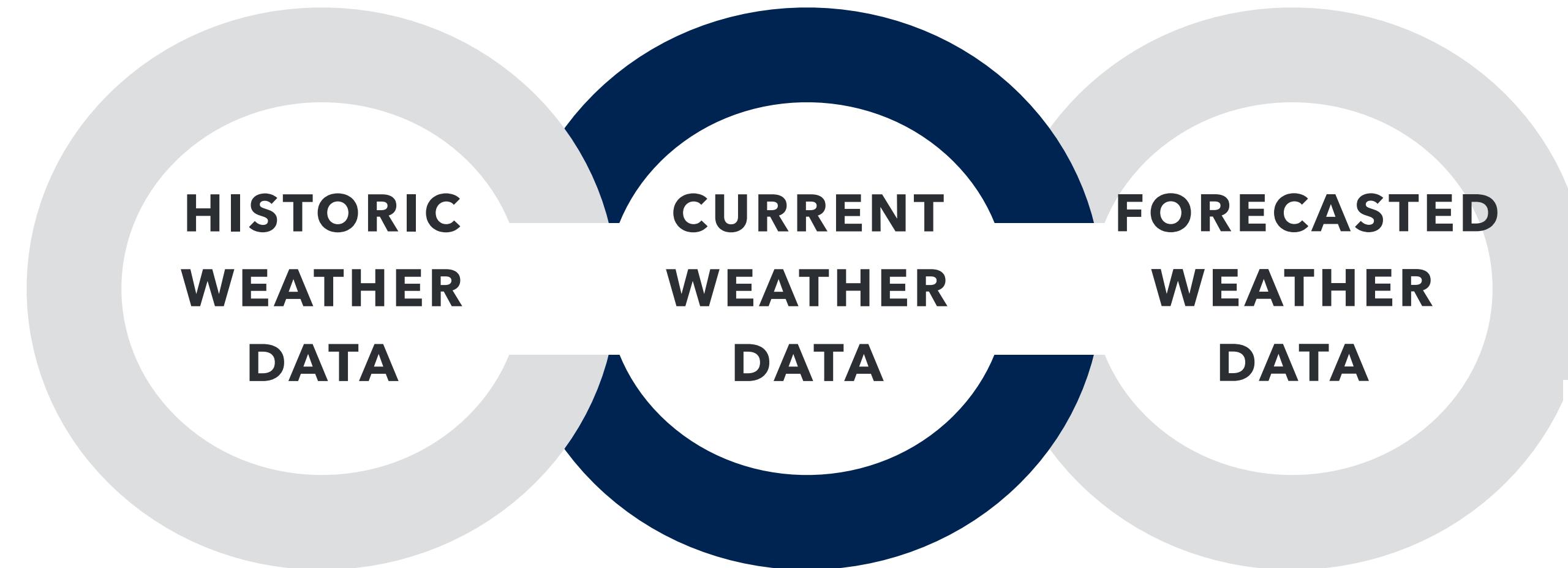
Pandas

Altair

## HEROKU

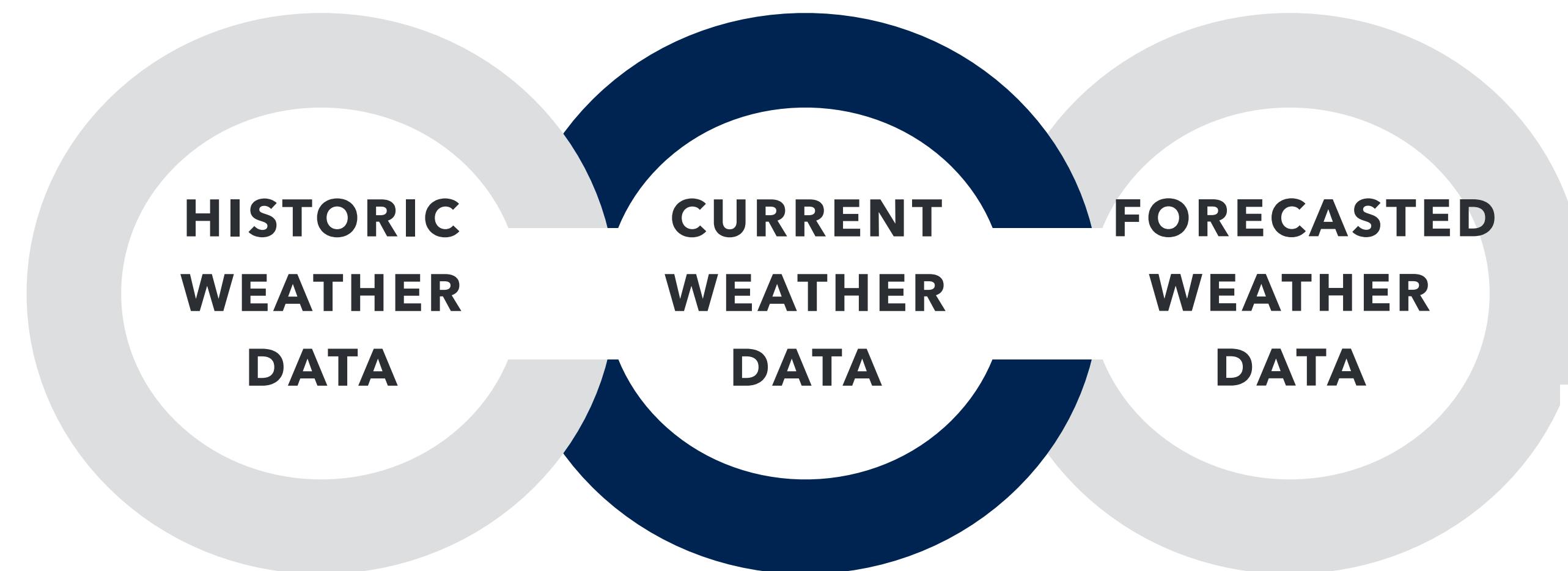
Deploy to cloud





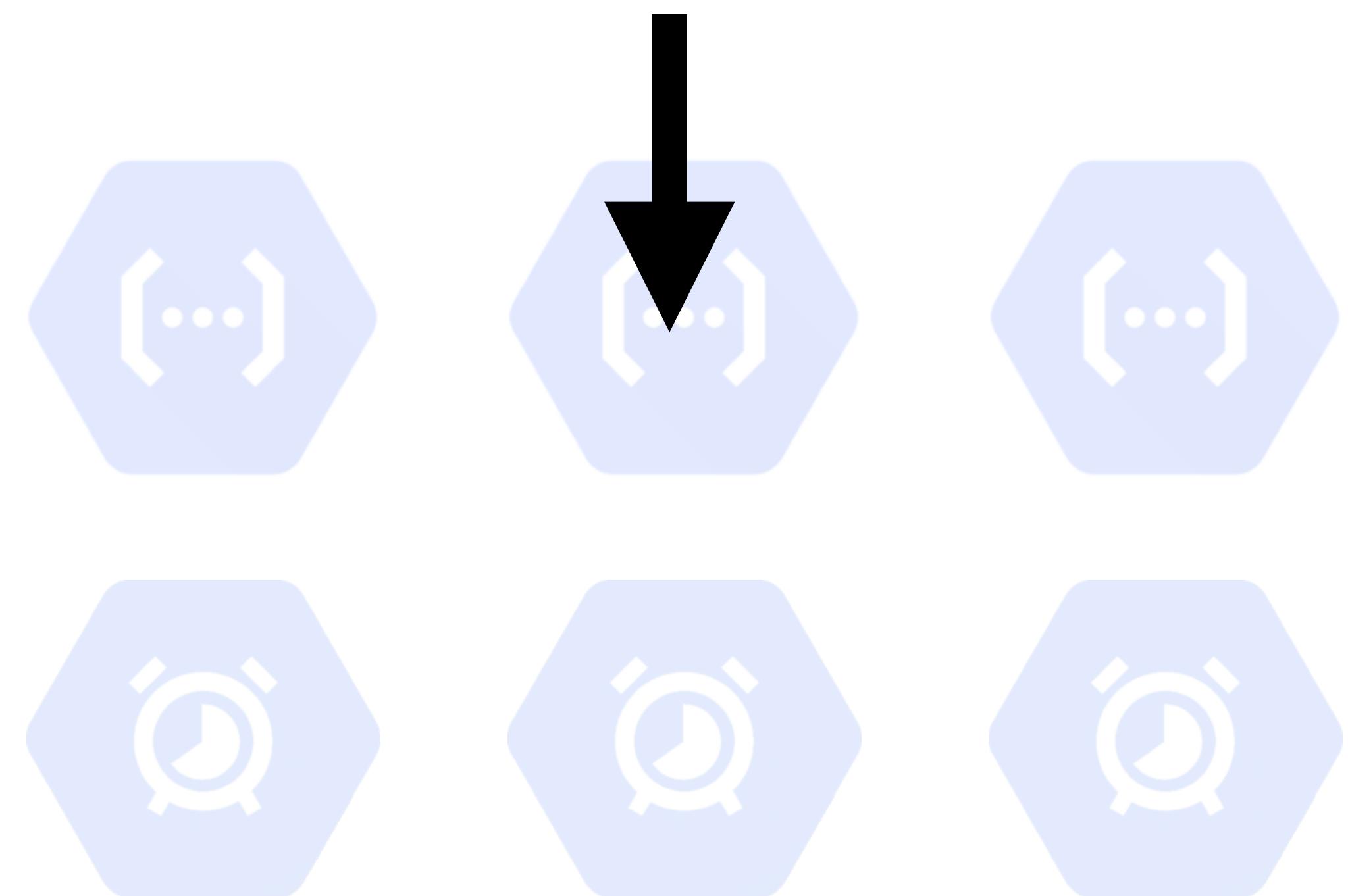
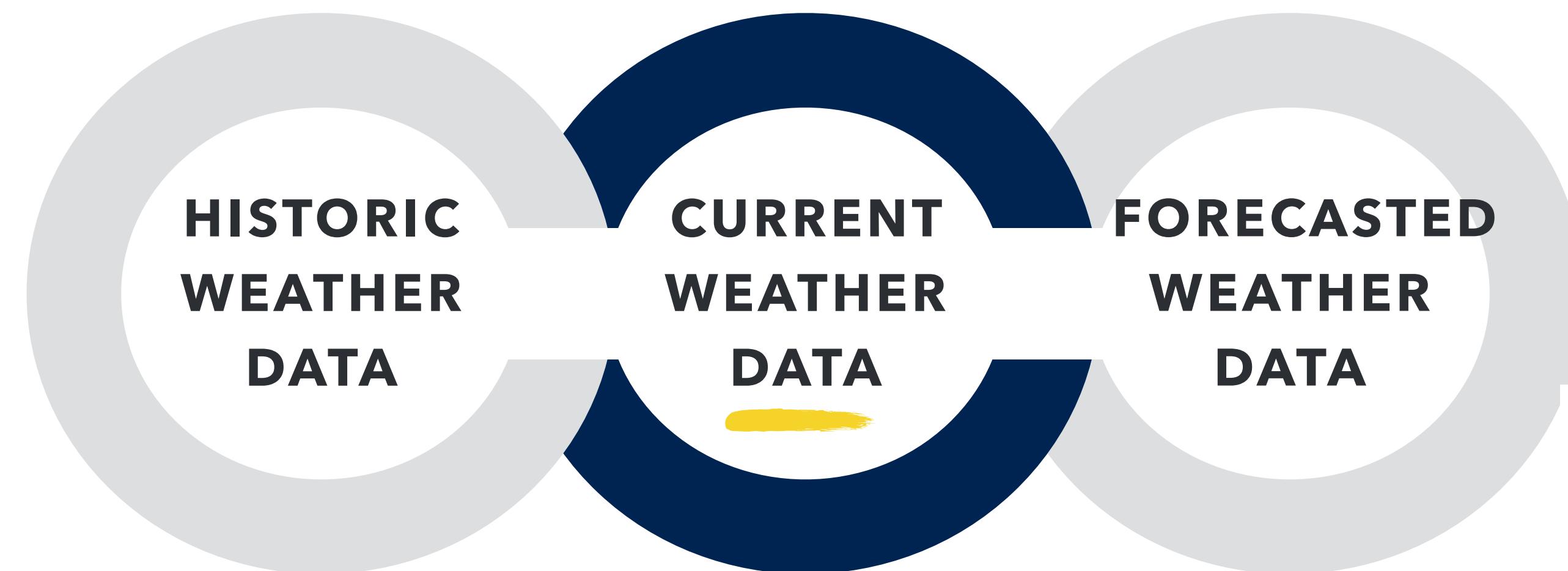
Cloud  
Firestore





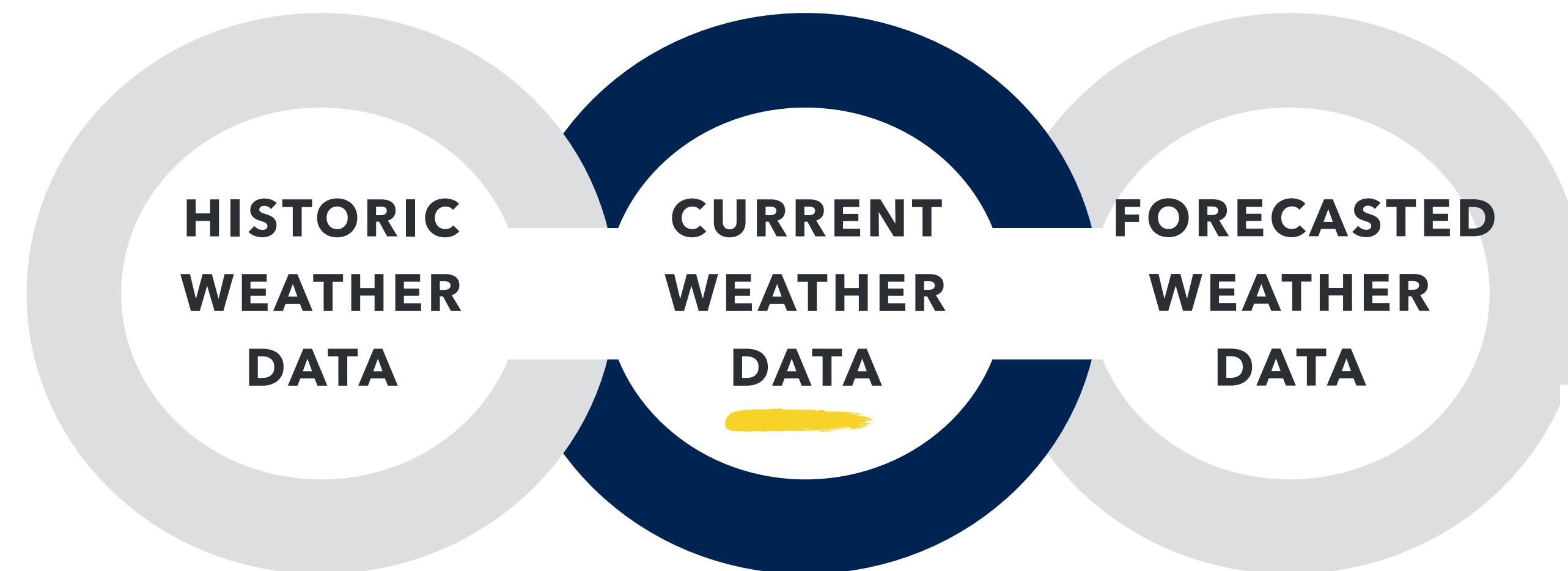
**Cloud  
Firestore**





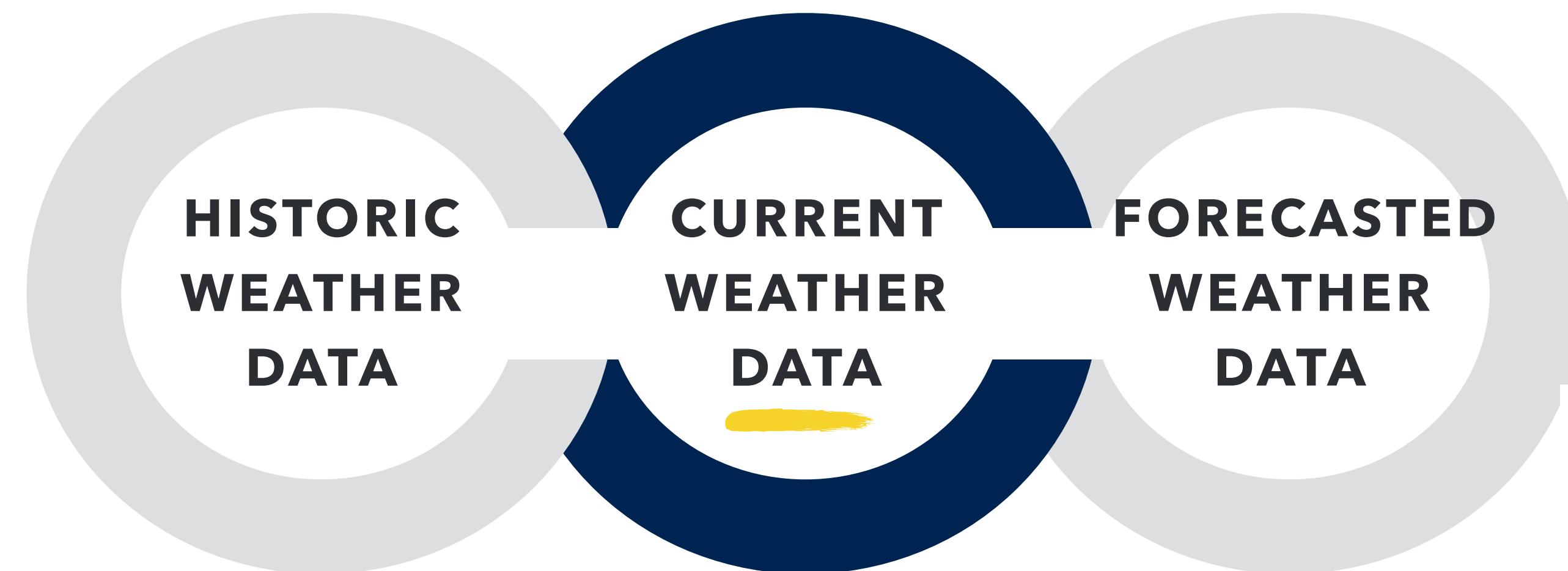
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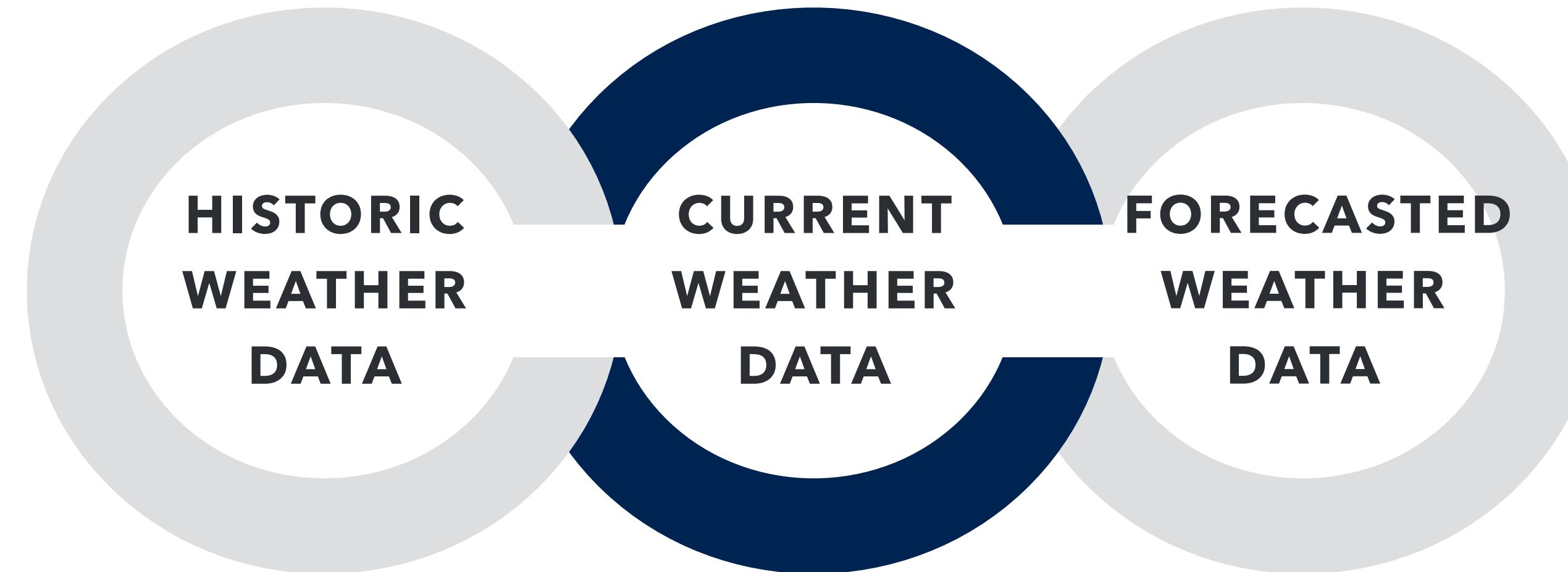
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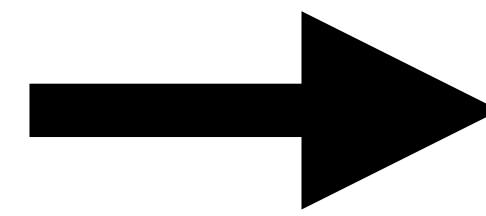


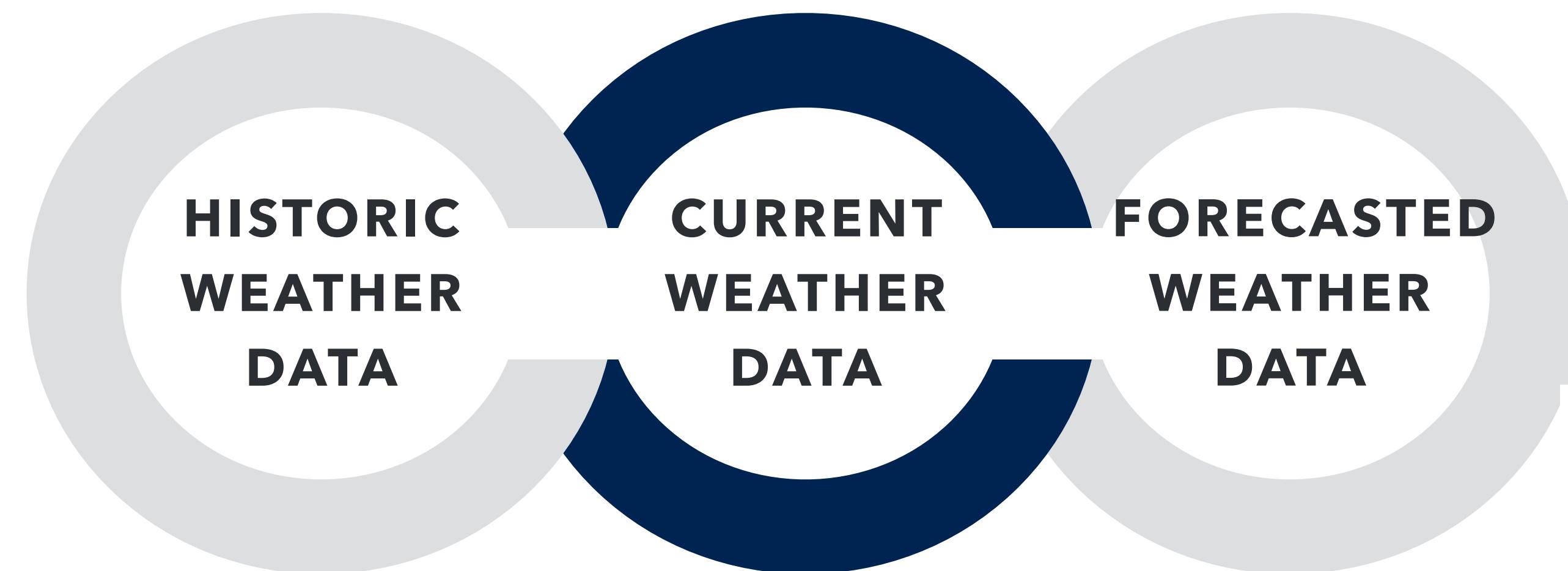
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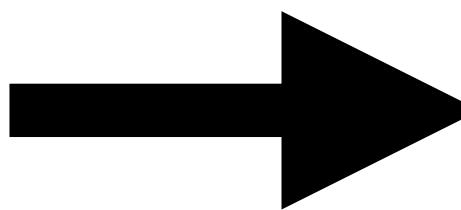


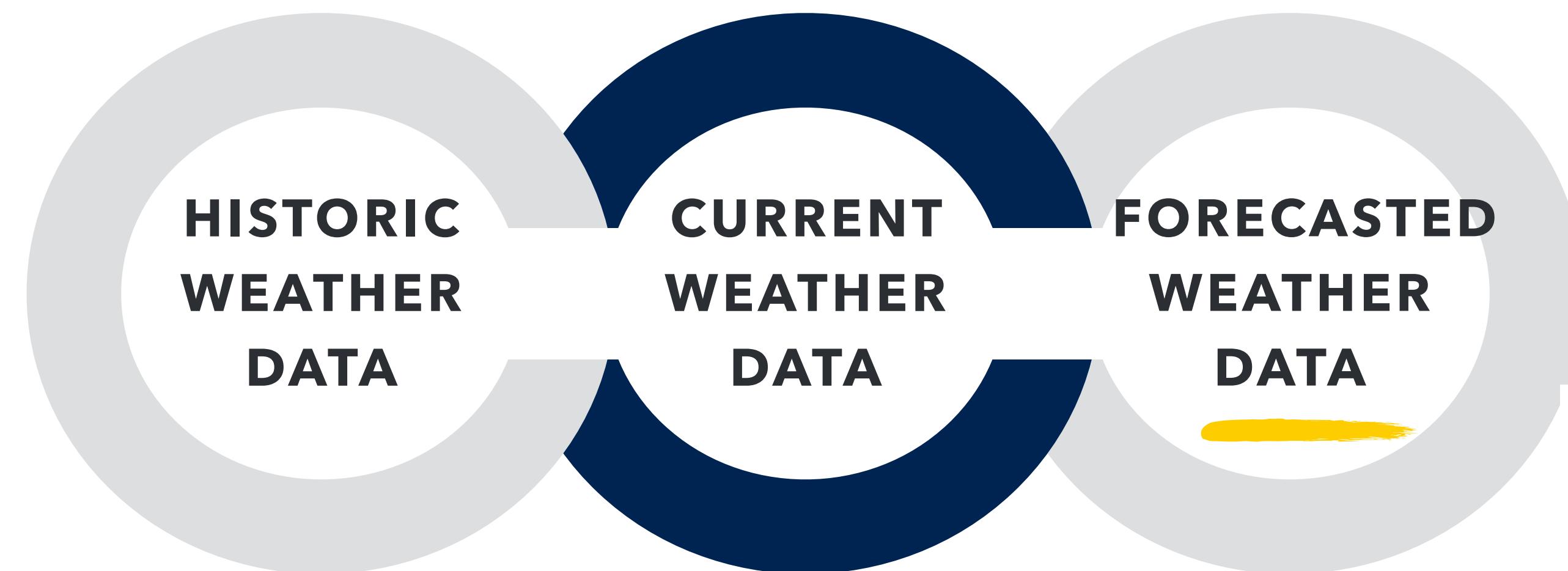
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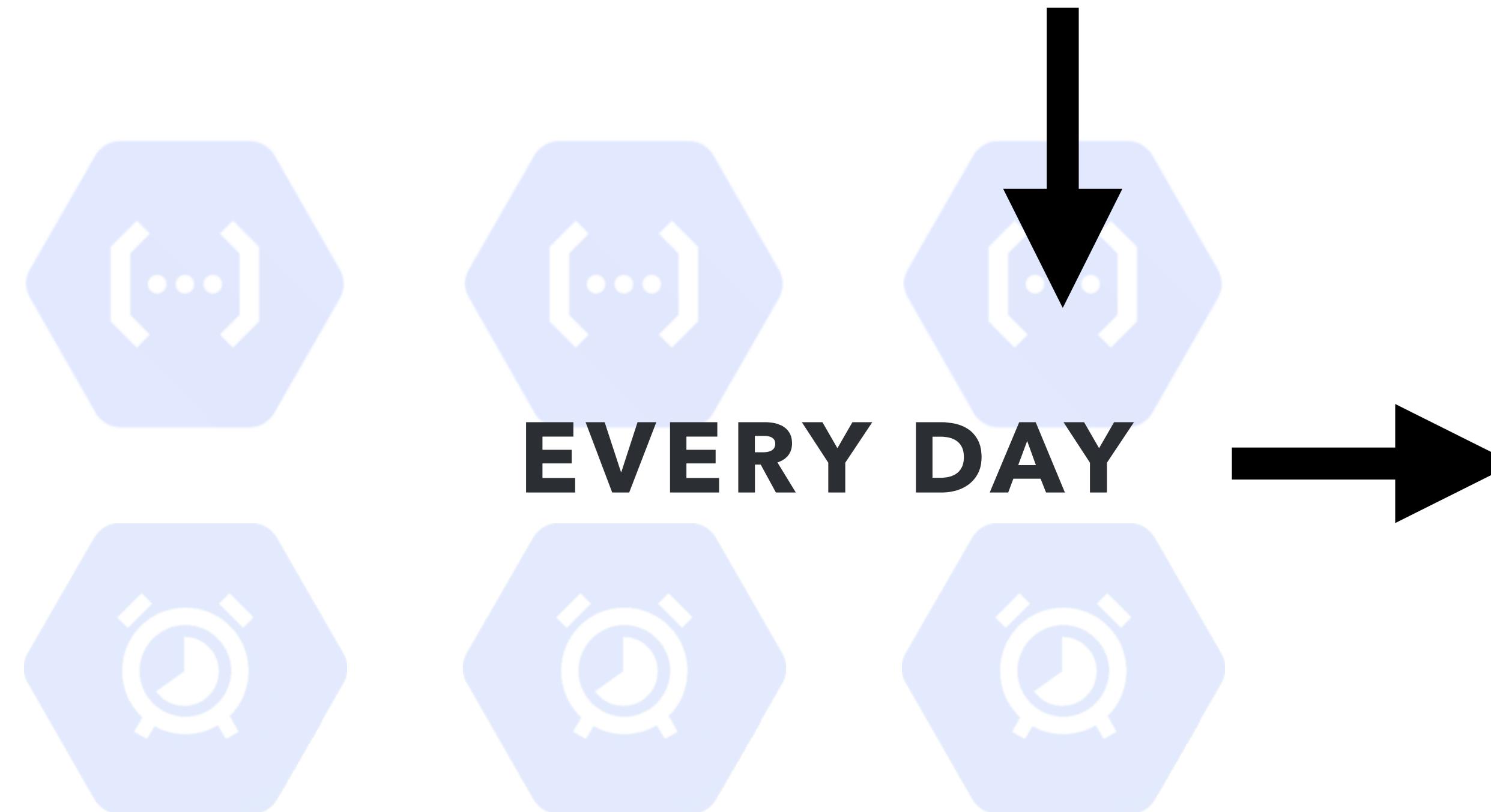


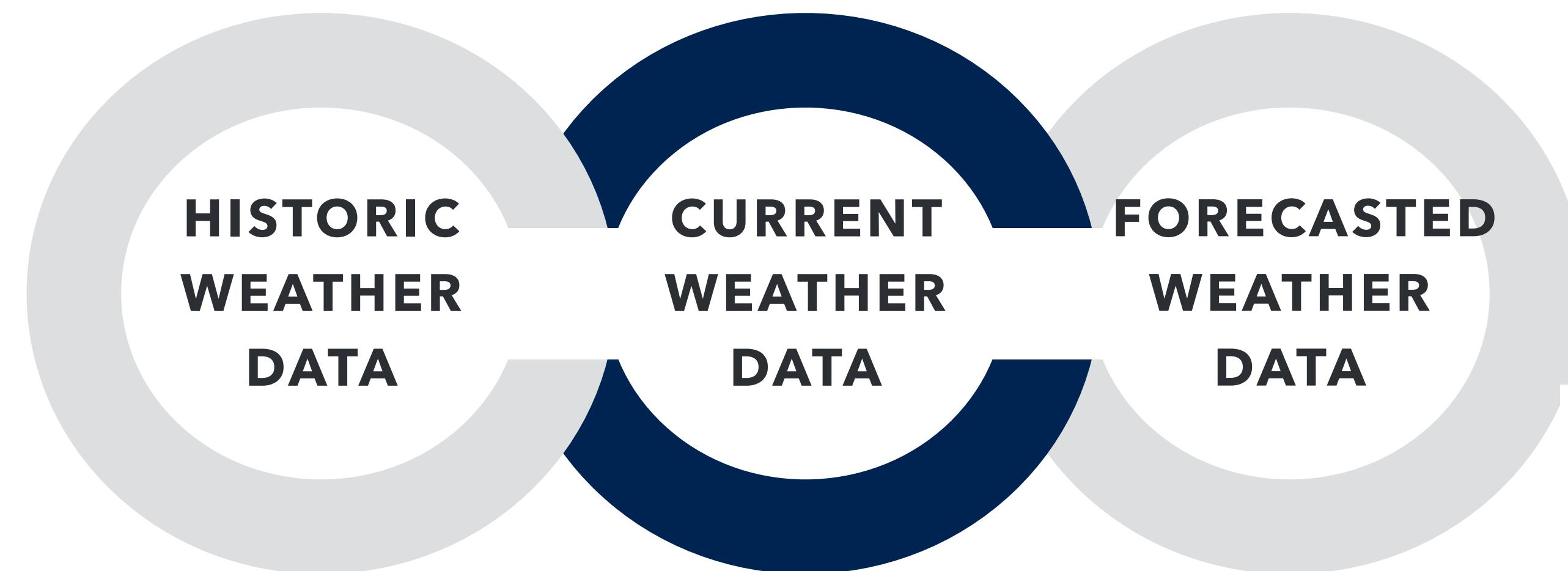
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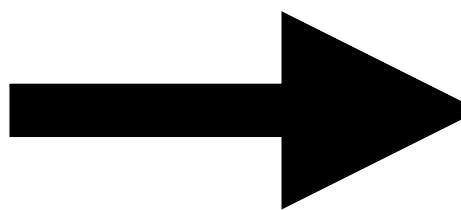


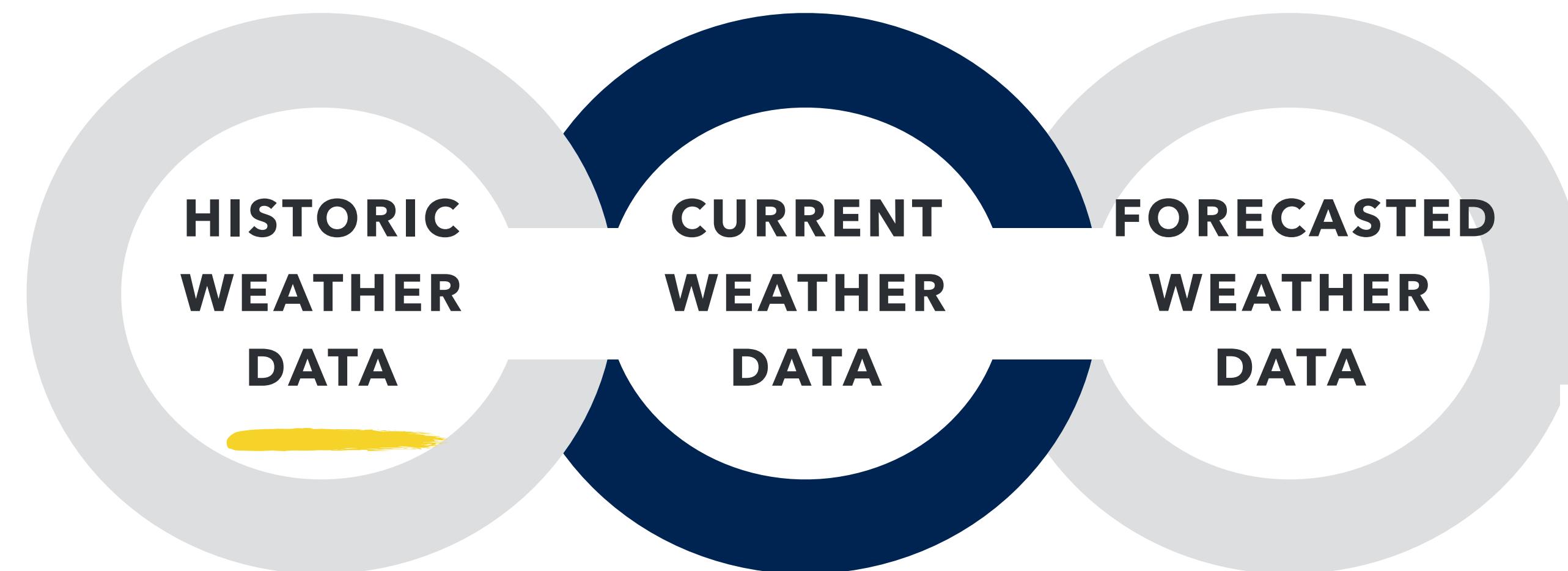
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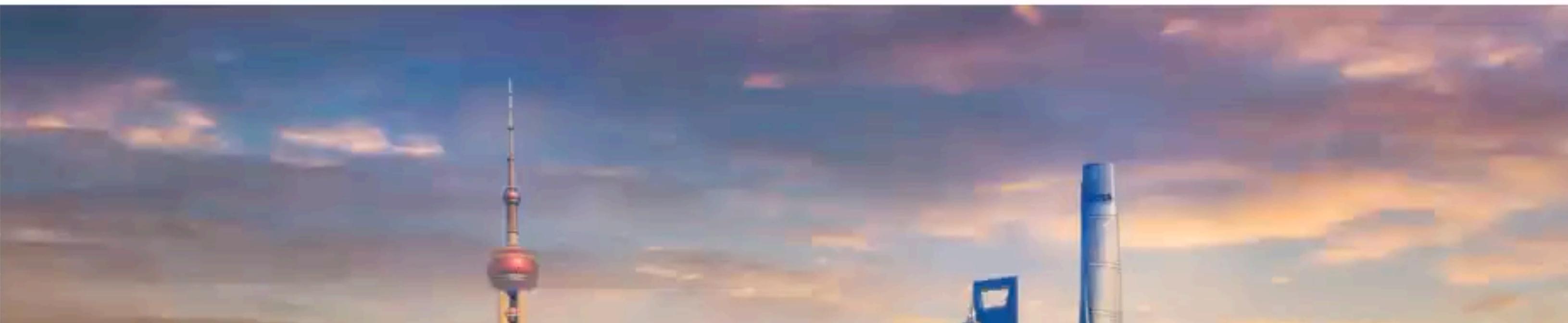


**SHANGHAI** on Tuesday, July 06, 2021 at 12:15

Temperature	Humidity	Status
33	55%	Clear

**Visualize Humidity Levels Over Past 24 Hours**

[Visualize](#)



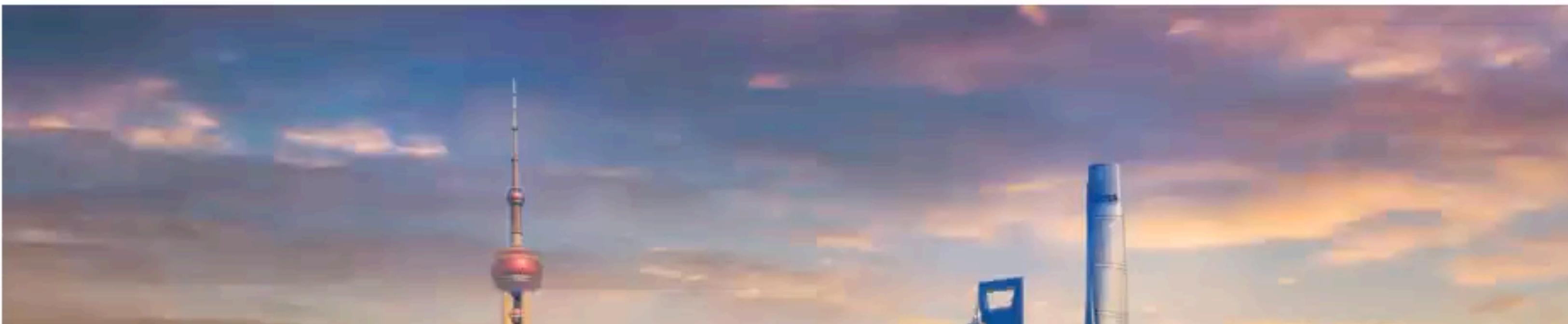


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- 2. INCLUDE FORECAST DATA**



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- 3. CALCULATE TIME OVER 55% HUMIDITY AND 20 DEGREES CELSIUS**



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

**THANK YOU!**