

# Case Study- Weather Data

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## Goals

1. UI to show Location of Contact on Map
2. API call out to get Daily Weather forecast for each contact's location

## Implementation

1. This can be achieved in different ways based on Business requirements.
2. One way would be to write this code on Insert of contact record, or on update of contact's address field (For implementation purpose, i have used Mailing address as the contact's location on basis of which we need to get the weather data). However this would not be completely real time as the API call to fetch weather data would be written in Future method.
3. Another solution is to write a batch that would fetch the weather forecast for all the contacts daily once/twice based on the Business needs.
4. Another solution could be to group contacts with the same pincode together, and fetch Weather data for these pincodes using a daily batch. We can store the Weather data based on Pincode, in a separate entity. Whenever a contact gets created/updated, based on contact's pincode correct weather record can be searched and displayed to the agent.
5. For implementation, i have gone with below flow:
  - a. On Insert of Contact, an API call would be made to OpenWeatherAPI which would return the weather data for the Pincode of Users. There were many APIs provided by Openweather, I went with the one where the API returns weather data based on Pincode.
  - b. In the map, I am only showing 2 response parameters. These 2 parameters are also stored in Contact as 2 separate fields. We can store more information based on our needs.
  - c. This code also needs to be written for After update, however i have not covered that use case in my implementation.
  - d. For The method for getting the Weather data, I have tried to keep the code as generic as possible. So this code itself can be called from batch/trigger/any other utility code.