

Database Schema:

The database schema consists of three tables: **cities**, **weather_data**, and **forecasts**.

cities table:

Column Name	Data Type	Description
id	int	Unique identifier for the city
name	varchar(50)	City name
latitude	decimal(10, 8)	City latitude
longitude	decimal(11, 8)	City longitude

weather_data table:

Column Name	Data Type	Description
id	int	Unique identifier for the weather data
city_id	int	Foreign key referencing the cities table
temperature	decimal(5, 2)	Current temperature
humidity	decimal(5, 2)	Current humidity
wind_speed	decimal(5, 2)	Current wind speed
weather_condition	varchar(50)	Current weather condition (e.g. sunny, cloudy, rainy)
last_updated	timestamp	Timestamp of when the weather data was last updated

forecasts table:

Column Name	Data Type	Description
id	int	Unique identifier for the forecast
city_id	int	Foreign key

		referencing the cities table
date	date	Date of the forecast
temperature_high	decimal(5, 2)	High temperature for the day
temperature_low	decimal(5, 2)	Low temperature for the day
weather_condition	varchar(50)	Weather condition for the day (e.g. sunny, cloudy, rainy)
created_at	timestamp	Timestamp of when the forecast was created

Database Code:
Here is some sample database code using MySQL:

```
CREATE DATABASE weather_app;
```

```
USE weather_app;
```

```
CREATE TABLE cities (  
  id INT PRIMARY KEY AUTO_INCREMENT,  
  name VARCHAR(50) NOT NULL,  
  latitude DECIMAL(10, 8) NOT NULL,  
  longitude DECIMAL(11, 8) NOT NULL  
);
```

```
CREATE TABLE weather_data (  
  id INT PRIMARY KEY AUTO_INCREMENT,  
  city_id INT NOT NULL,  
  temperature DECIMAL(5, 2) NOT NULL,  
  humidity DECIMAL(5, 2) NOT NULL,  
  wind_speed DECIMAL(5, 2) NOT NULL,  
  weather_condition VARCHAR(50) NOT NULL,
```

```
last_updated TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP,  
FOREIGN KEY (city_id) REFERENCES cities(id)  
);
```

```
CREATE TABLE forecasts (  
id INT PRIMARY KEY AUTO_INCREMENT,  
city_id INT NOT NULL,  
date DATE NOT NULL,  
temperature_high DECIMAL(5, 2) NOT NULL,  
temperature_low DECIMAL(5, 2) NOT NULL,  
weather_condition VARCHAR(50) NOT NULL,  
created_at TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP,  
FOREIGN KEY (city_id) REFERENCES cities(id)  
);
```