

Weather Assistant

Introduction to cloud computing

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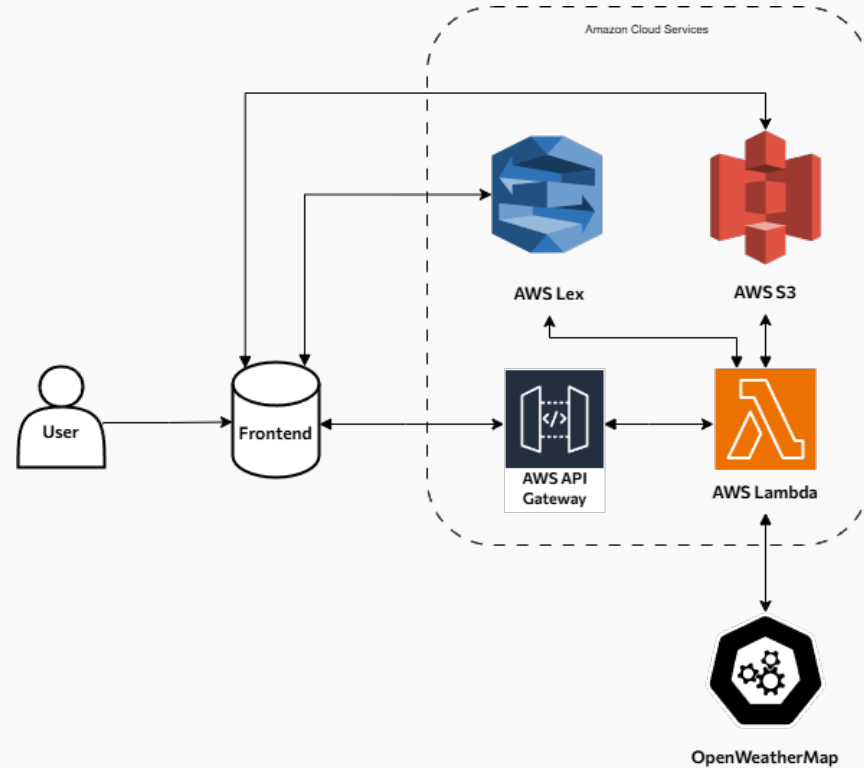
Project Idea

- **Real-time weather chatbot** that enables users to **query** weather information and receive **recommendations**.
- How it works:
 - **User input:** User enters location or asks something (e.g., *"What's the weather like in Porto tomorrow?"*)
 - **Backend:** Serverless function fetches and processes weather data from an API.
 - **Output:** The assistant responds with
 - Current weather.
 - Suggestions (e.g., *"Perfect for outdoor activities."*).

Cloud Services

Service	Purpose
OpenWeatherMap	Fetch real-time weather data
AWS Lambda	Process queries and generate responses
AWS API Gateway	Connect frontend and backend
AWS S3	Host the frontend
AWS Lex	Create and manage the chatbot interface

Architecture



Plan

1. Set up **OpenWeatherMap** API.
2. Set up the **serverless function** (AWS Lambda) to handle queries from the chatbot and process weather data.
3. Configure AWS Lex **chatbot** for interactive user queries.
4. Build a web **frontend** for user interaction.
5. **Connect frontend and backend** by integrating API Gateway.
6. **Deploy** frontend on AWS S3.
7. **Test and refine.**