

# WEATHER REPORT SYSTEM FOR MALI

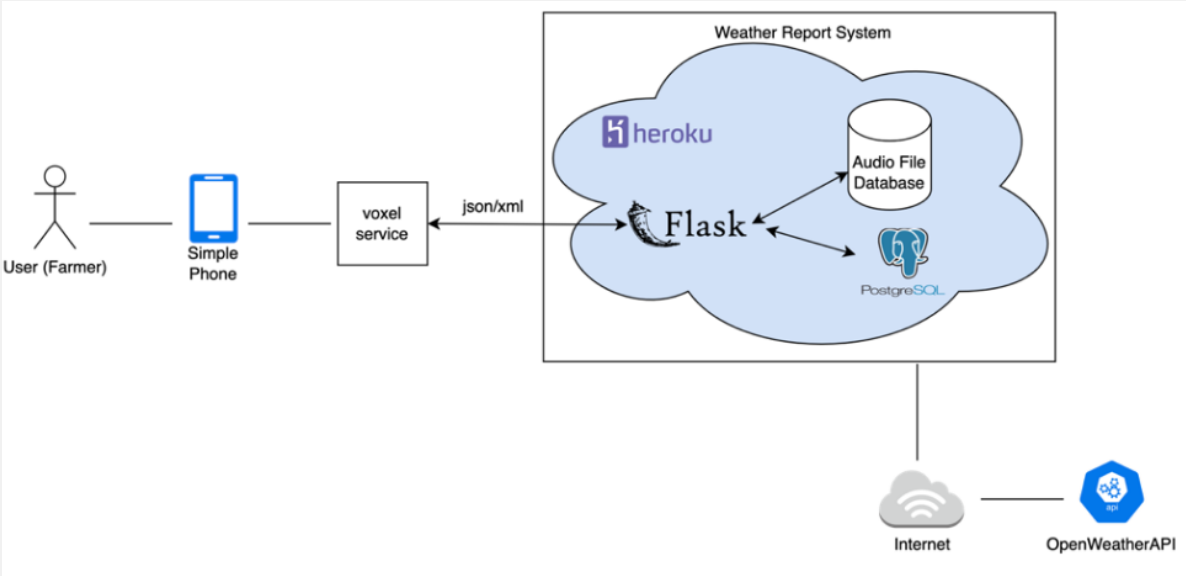
GROUP 17  
YUYU BAI, ZHINING BAI, A.W. GERRITZEN, SIMEI LI, YIRAN LI

## Introduction

This weather report system aims to provide farmers in Mali with weather forecast and severe weather alerts since it is difficult for the local people to know the weather precisely due to lack of technology and network. This service provides an intuitive voice-based interface that converts quantitative weather data into understandable information and supports in English and French.



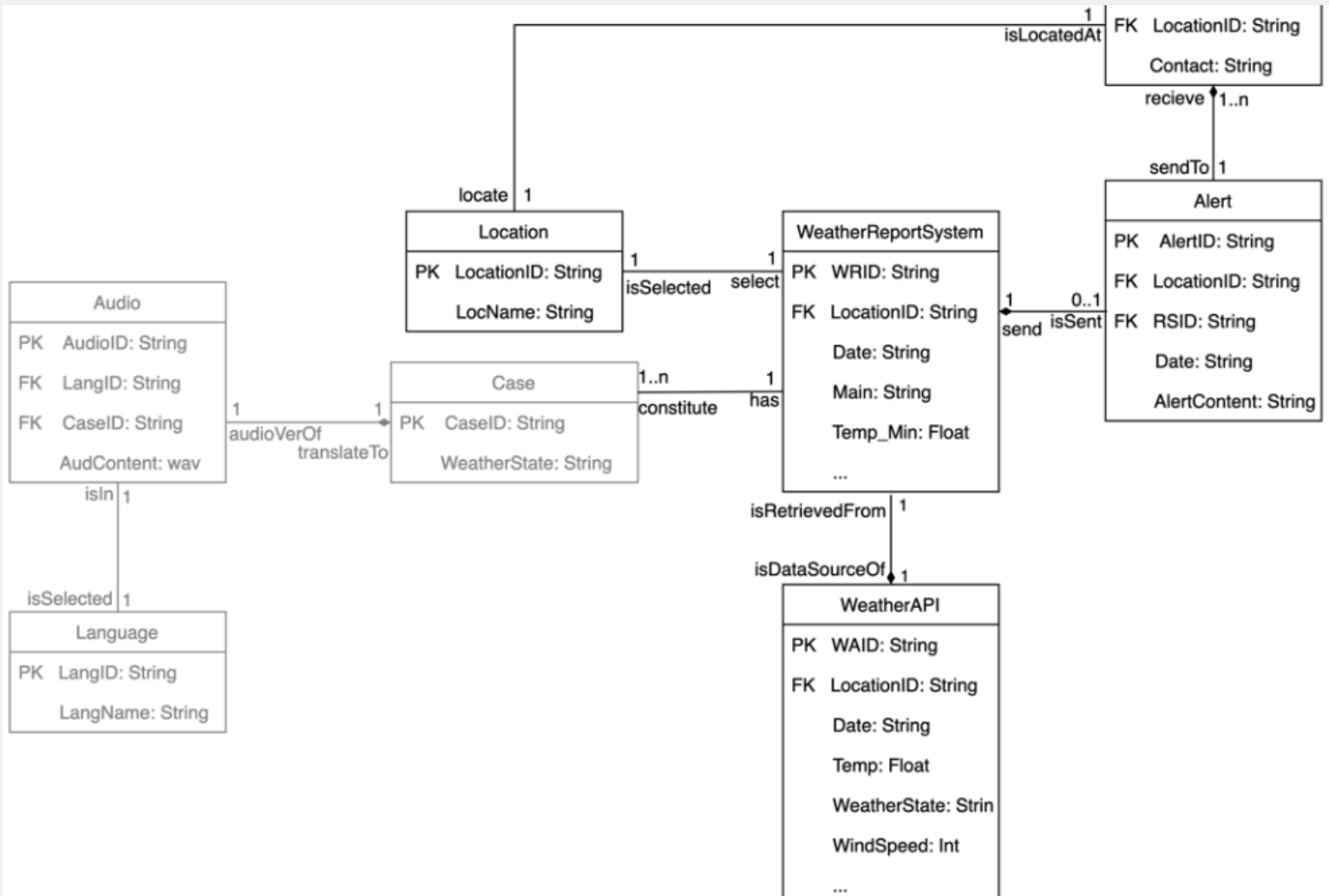
## Technology infra-structure diagram



Deployed and hosted on Heroku, the prototype, built mostly in Python 3.10, offers an insight into what the finished product could look like.

Users will take the VoiceXML browser as their entry point. The weather report system chooses Flask as the web application framework, PostgreSQL as the database.

## Tables and variables recorded in the Postgres database



## Sample of data stored in 'day\_weather' table

Date	Location	Main	Description	Temp_min	Temp_max
2022-05-24	Sikasso	Rain	light rain	297.5	305.25
2022-05-25	Sikasso	Rain	light rain	296.45	305.53
2022-05-26	Sikasso	Rain	light rain	295.27	305.82
2022-05-27	Sikasso	Clouds	few clouds	296.78	310.34
2022-05-28	Sikasso	Rain	light rain	297.28	311.35
2022-05-29	Sikasso	Rain	light rain	297.59	312.38
2022-05-30	Sikasso	Rain	moderate rain	296.85	311.52
2022-05-31	Sikasso	Rain	light rain	295.63	307.73
2022-05-24	Ségou	Rain	light rain	301.72	310.88

## How to access the application

GitHUB:  
<https://github.com/WillemGerritzen/ict4d>  
Heroku welcome page:  
<https://hows-the-weather-tmmr.herokuapp.com/>  
Query weather page:  
<https://hows-the-weather-tmmr.herokuapp.com/webForm>  
Alert info page:  
<https://hows-the-weather-tmmr.herokuapp.com/alert>  
DATABASE:  
<https://data.heroku.com/dataclips/sbrdphjngwwjodkzgotscvfdrsua>  
CALL VOXEO service:  
Phone Number: +31 20 8082848 Code: 9990521878

## Web interface-query page

Location

Sikasso

Date

Tomorrow

Ask Weather

## Web interface-result page

Sikasso				
description	temperature_min	temperature_max	wind_speed	humidity
light rain	24	32	3.71	46