
# Future Climate

Australian context

# Topics

- Introduction
- Methodology
- Sample Data
- Demo
- Story/Summary

# Introduction

This project will be looking at the climate scenarios out to 2100.

This data set was selected because it was generated by the Bureau of Meteorology and the CSIRO, and both are trusted sources of climate data.

The data will be able to tell us about what the climate might look like for a range of scenarios for limiting our greenhouse gas emissions.

# Project Team

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# Methodology (1/2)

Several CSV files were extracted from an Australian climate research website and then loaded on to a database using Python. The data was then cleansed using SQL. An API was written using Python and Flask . The interactive visualization page was built using JS, Flask, CSS, Bootstrap and HTML. For maps and charts Leaflet and Plotly was used. The application and database was then deployed to Heroku.

## Data Source

The climate data sets used in this project was sourced from Climate Change Australia web site. The data is owned by CSIRO.

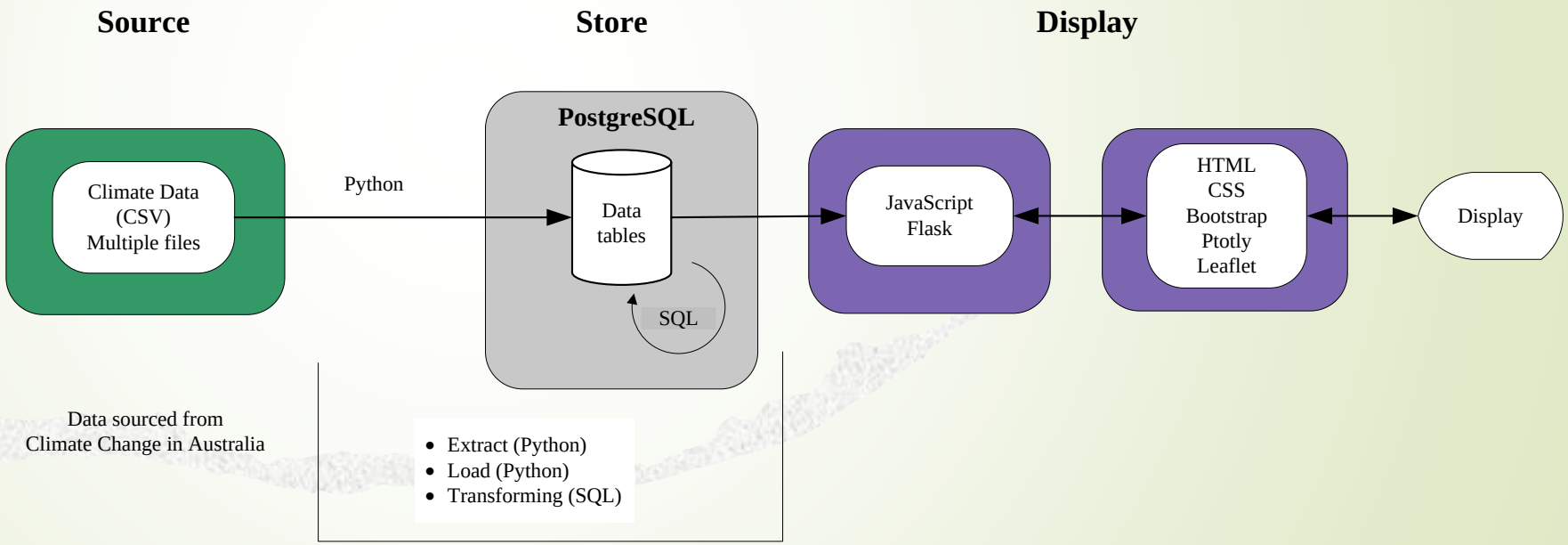
https://www.climatechangeinaustralia.gov.au/en/obtain-data/download-datasets/

# Methodology (2/2)

## Data/Process Flow

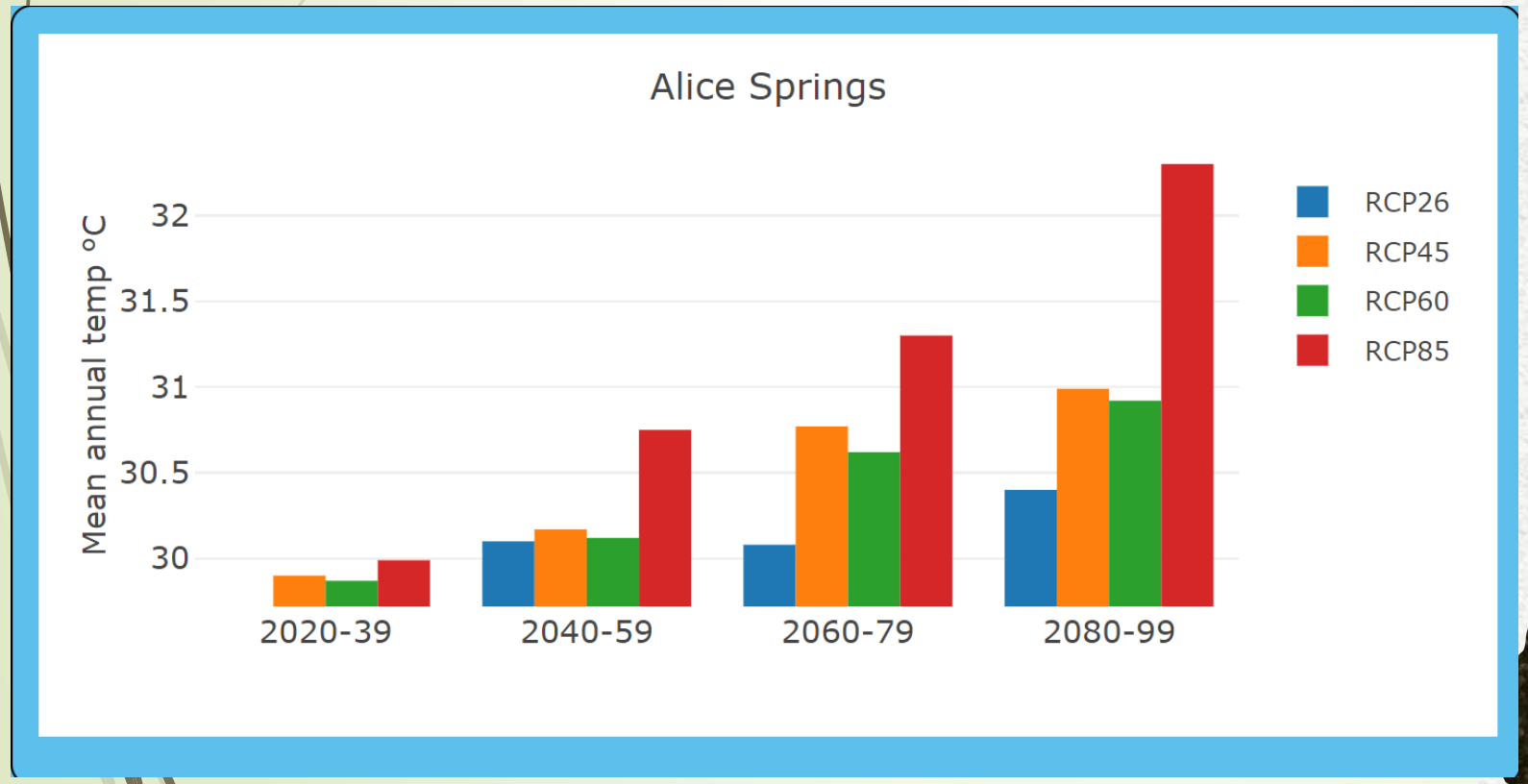
The following modules were used for the project

- JavaScript
- Python
- Flask
- CSS
- Bootstrap
- HTML
- Plotly
- Leaflet
- SQL
- PostgreSQL
- Heroku



# Sample Data (1/2)

Average RCP temperature by year intervals (Representative Concentration Pathway)




# Sample Data (2/2)

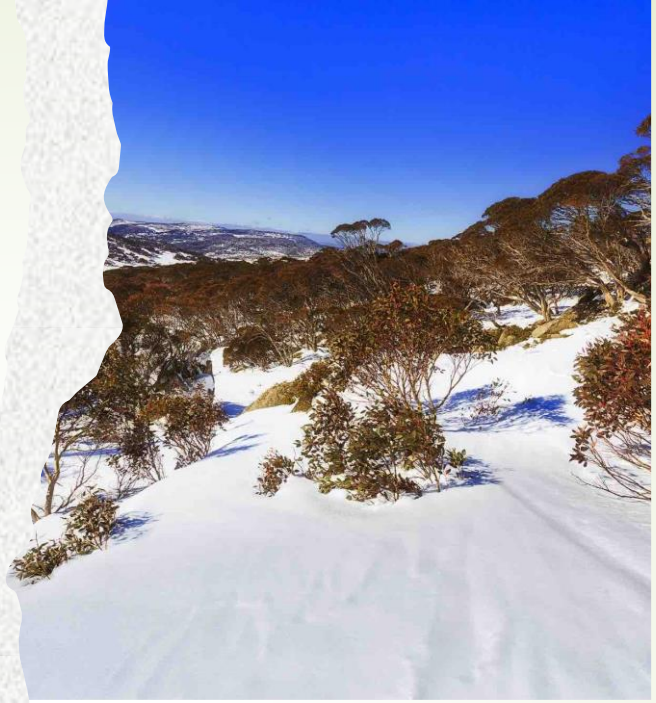
Australian Weather stations


Demo

# Summary

If the current trends are to continue the number of hot days for each season in all cities will increase. The cities that currently have extreme hot days will have extreme many catastrophic days in the future.

From the data, it can be seen that if we don't do any remedial action to reduce the greenhouse gases a country like Australia will have more extreme heat and catastrophic days in the future.



# Thank you