ApplicationController : Base

Application Controller

<<interface>>
Web View

ActiveRecord : Base

Initialiser(JSON Parser/HTML Scrapper)

apiSource : URL
html : URL

parseAPIs(api) : data
scrapHTML(html) : data

Access to Models

Store data

interact

Location

location_id : text
post_code : string
lat : float
long : float
late_update : datetime

Description

location : Location
date : datetime

predict(current_value) : prediction

1   1..*

Weather Controller

index() : Homepage
data({postcode,location_id}) : DataPage
prediction({postcode,location_id},period) : PredictionPage
locations() : LocationPage

SWEN30006 – Project 3A
Class Diagram – Group 17

Temperature

temperature : float

Rainfall

rainfall : float

WindSpeed

windSpeed : float

WindDirection

windDirection : float

Component Diagram

<<subsystem>> Controller

- : search location
- : search data
- : search prediction

HTTP REQUEST

search: ⇓ locations

location_id/ postcode & date

location_id/ postcode

present results

provide 'period' for predict()

return prediction

<<subsystem>> Model

: location

contains:
- post code
- location_id
- lat / long
- late_update

: description

Contains
- temperature
- rainfall
- wind speed
- wind direction

<<process>> predict()

get data from

get data from

<<subsystem>> parser

- : location parser
- : weather parser

processed by

<<subsystem>> View

- : locations view
- : data view
- : prediction view

HTTP RESPONSE

<<subsystem>> online sources

- : server for weather data
- : server for location details

User	Request	Controller :data	Model :location	Model :description	Controller :parser	View

Correctly formatted request →

Calls method with arguments →

Pass location and date →

Request readings for that date →

Return all matching readings →

Send all data and request type →

Retuurn as JSON/HTML →

Send correctly formatted JSON/HTML →

User	Request	Controller :locations	Model :locations	Controller :parser	View

Correctly formatted reque

Calls method with arguments

Request all locations

Return that data

Send all data and request type

Retuurn as JSON/HTMl

Send correctly formatted JSON/HTM