COMP90024 Assignment 2
Melb-Suburbs Information Analyser

Group 6

Haoyang Cui - 886794
Xin Wu - 947753
Dongming Li - 1002971
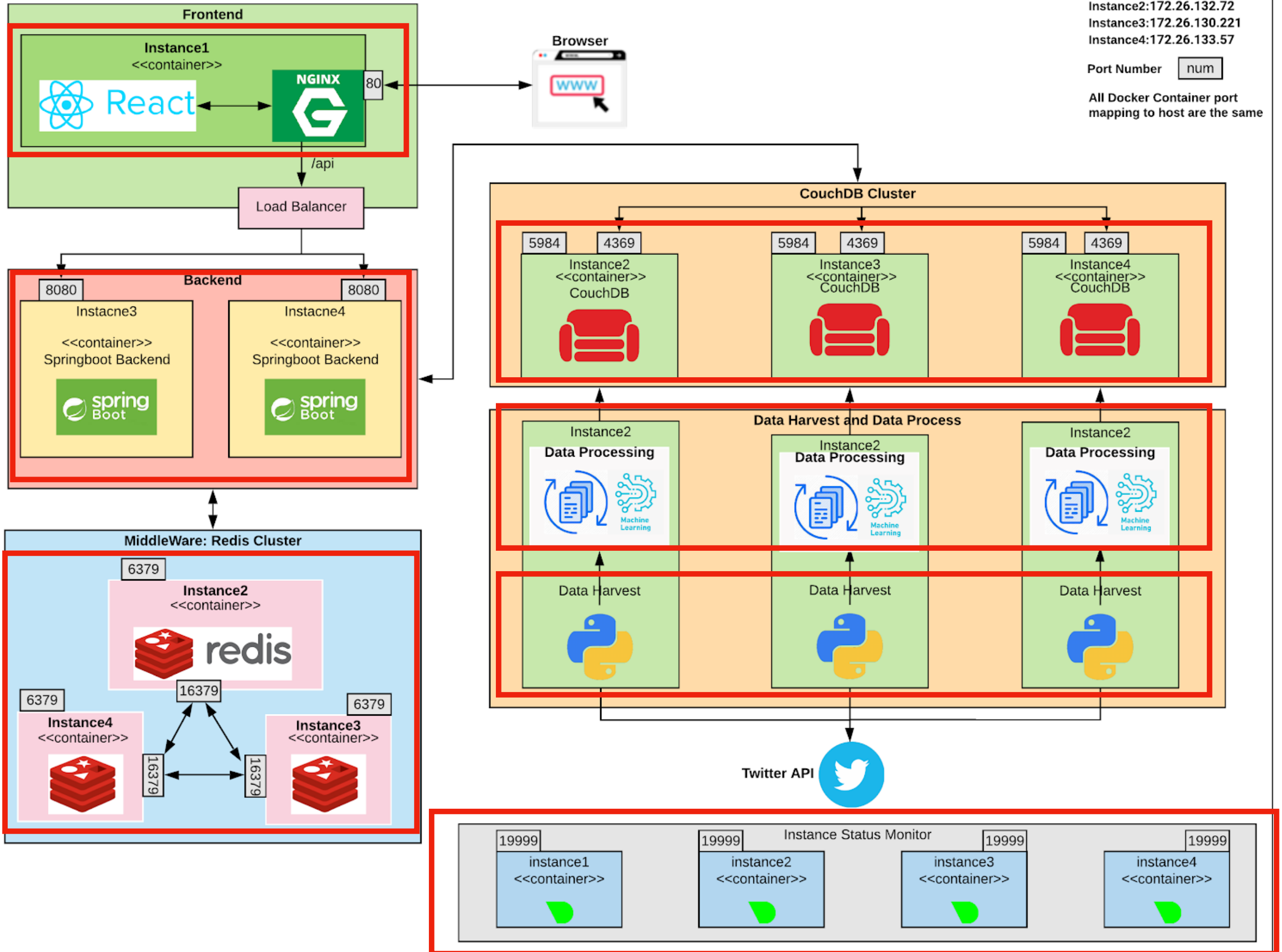Ziyue Wang - 1014037
Mayan Agarwal - 973957

System Architecture

Architecture Diagram

Instance1:172.26.131.6
Instance2:172.26.132.72
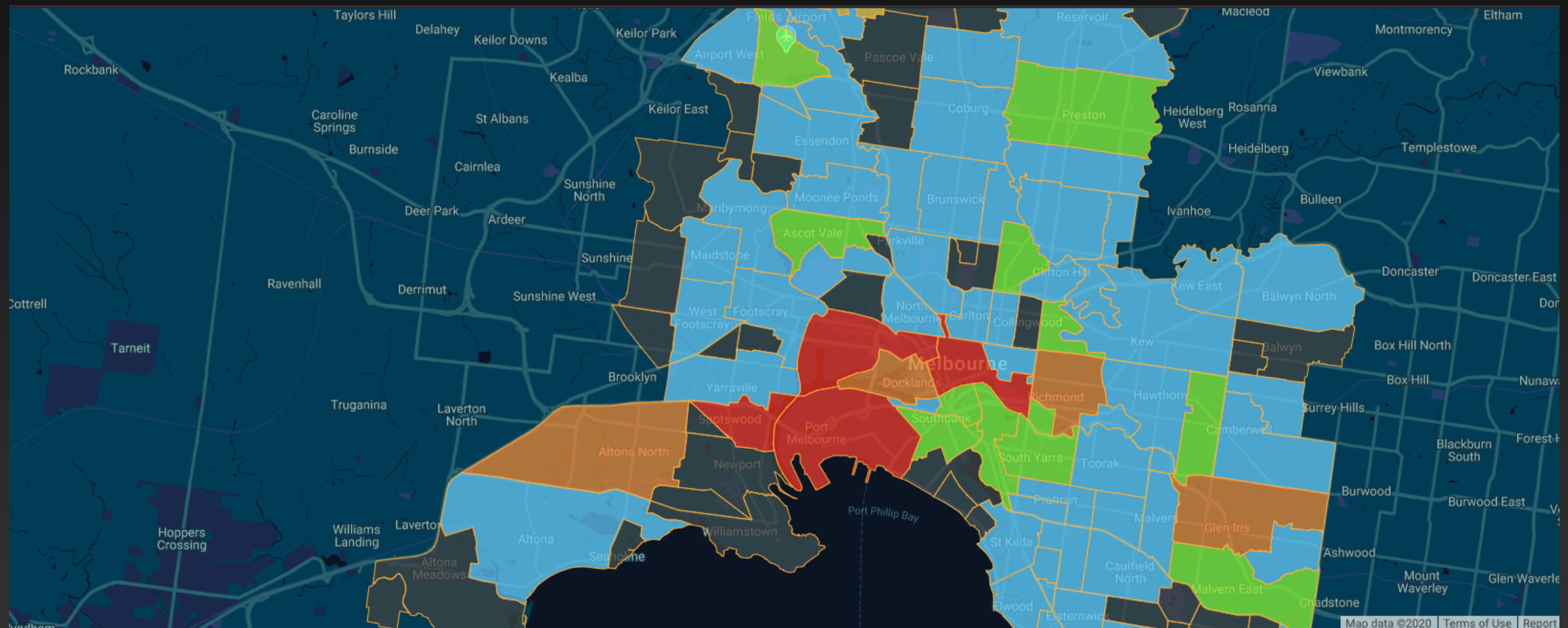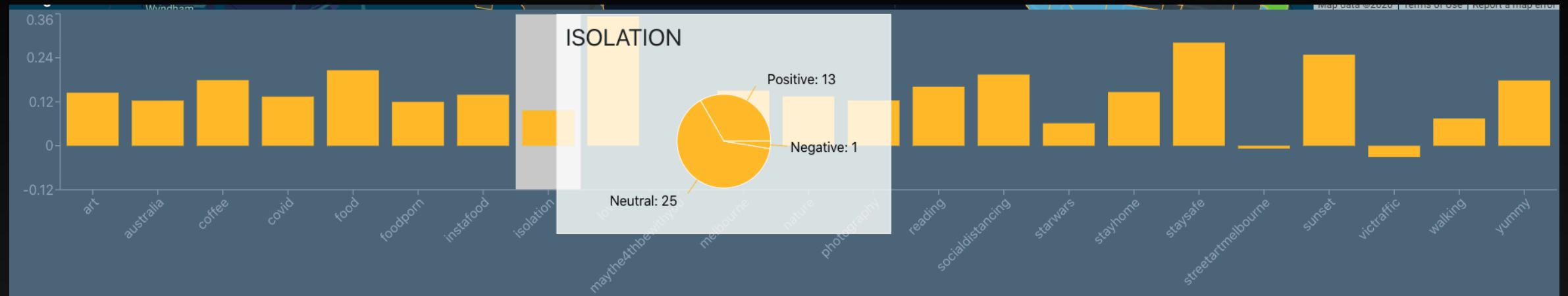Instance3:172.26.130.221
Instance4:172.26.133.57

Port Number num
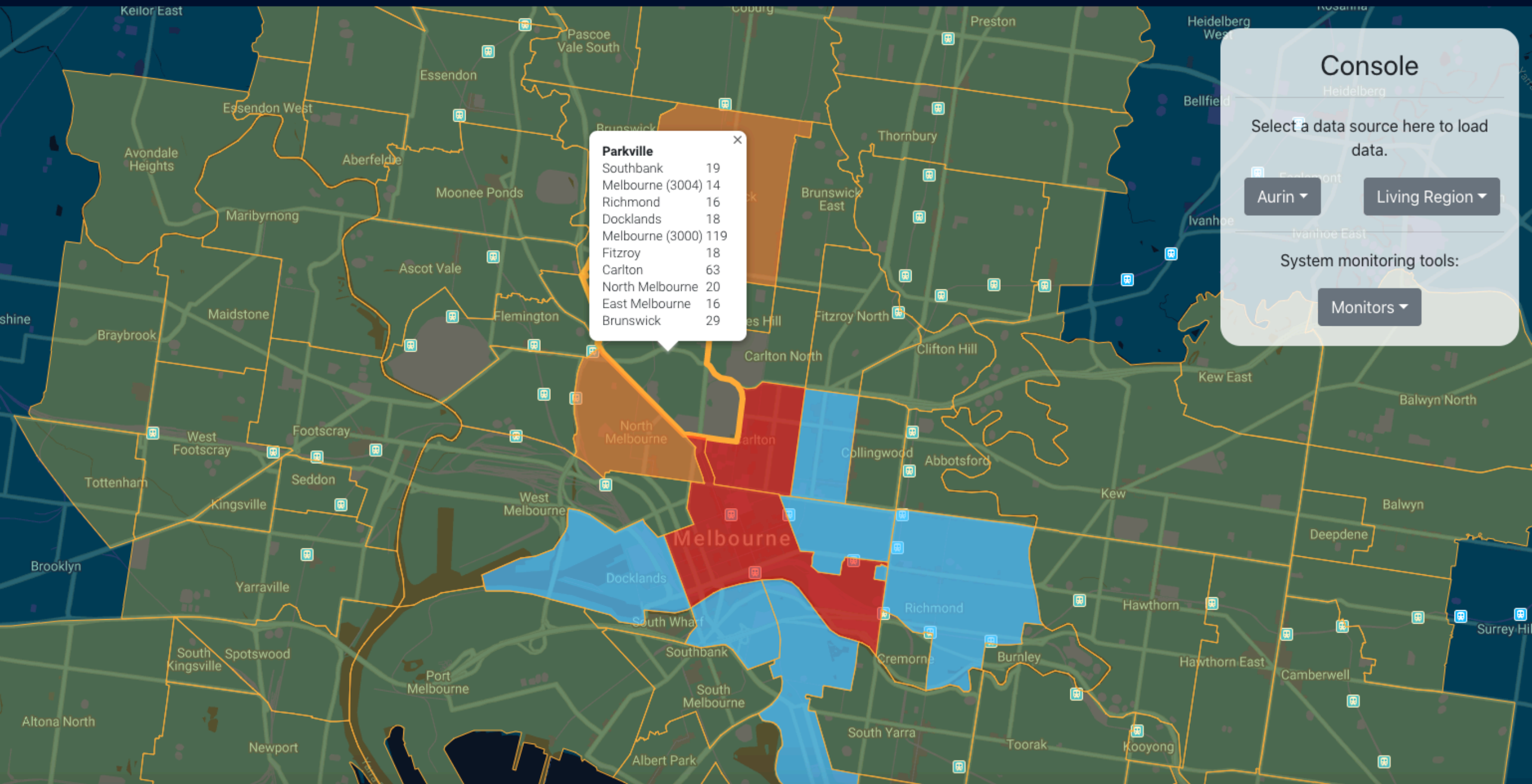
All Docker Container port mapping to host are the same

Frontend

Instance1
<<container>>

React ⟷ NGINX 80 ⟷ Browser WWW

/api

Load Balancer

CouchDB Cluster

5984 4369 Instance2 <<container>> CouchDB
5984 4369 Instance3 <<container>> CouchDB
5984 4369 Instance4 <<container>> CouchDB

Backend

8080 Instacne3 <<container>> Springboot Backend
8080 Instacne4 <<container>> Springboot Backend

Data Harvest and Data Process

Instance2 **Data Processing** Machine Learning
Instance2 **Data Processing** Machine Learning
Instance2 **Data Processing** Machine Learning

Data Harvest
Data Harvest
Data Harvest

MiddleWare: Redis Cluster

6379
Instance2 <<container>> redis

6379 16379
Instance4 <<container>>

16379 16379
6379 **Instance3** <<container>>

Twitter API

Instance Status Monitor

19999 instance1 <<container>>
19999 instance2 <<container>>
19999 instance3 <<container>>
19999 instance4 <<container>>

Key Scenarios

Key Scenarios : Hot words

Key Scenarios: Closed Living Region