

```
Windows PowerShell
{"apparent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir":"S","time_zone":"CST","air_temp":13.3,"cloud":"Partly cloudy","local_date_time_full":"20230715160000","local_date_time":"15/04","name":"Adelaide (West Terrace / ngay irdapira)","id":"IDS60901","state":"SA","press":1023.9,"lat":-34.9}
Lamport Clock Timestamp at Client: 5
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> java -cp ".;C:\Users\DELL\Downloads\json-20140107.jar" Client local host 4040 IDS60903
HTTP/1.1 200 OK
Content-Type: application/json

{"apparent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir":"S","time_zone":"CST","air_temp":13.3,"cloud":"Rainy","local_date_time_full":"20230715160000","local_date_time":"25/04","name":"Adelaide (Lightsview)","id":"IDS60903","state":"SA","press":1023.9,"lat":-35.9}
Lamport Clock Timestamp at Client: 5
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> java -cp ".;C:\Users\DELL\Downloads\json-20140107.jar" Client local host 4040 IDS60903
HTTP/1.1 200 OK
Content-Type: application/json

{"apparent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir":"S","time_zone":"CST","air_temp":13.3,"cloud":"Rainy","local_date_time_full":"20230715160000","local_date_time":"25/04","name":"Adelaide (Lightsview)","id":"IDS60903","state":"SA","press":1023.9,"lat":-35.9}
Lamport Clock Timestamp at Client: 5
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2>
```

```
Windows PowerShell
Lamport Clock Timestamp at Content Server: 5
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> java -cp ".;C:\Users\DELL\Downloads\json-20140107.jar" ContentServer 4040 weather-sample-data.txt 02
Content Server Started with ID: 02
HTTP/1.1 200 OK
Lamport Clock Timestamp at Content Server: 5
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> java -cp ".;C:\Users\DELL\Downloads\json-20140107.jar" ContentServer 4040 weather-sample-data.txt 02
Content Server Started with ID: 02
I/O error occurred: Connection refused: connect
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> java -cp ".;C:\Users\DELL\Downloads\json-20140107.jar" ContentServer.java 4040 weather-sample-data.txt 02
Content Server Started with ID: 02
HTTP/1.1 200 OK
Lamport Clock Timestamp at Content Server: 5
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> java -cp ".;C:\Users\DELL\Downloads\json-20140107.jar" ContentServer.java 4040 weather-sample-data.txt 02
Content Server Started with ID: 02
HTTP/1.1 200 OK
Lamport Clock Timestamp at Content Server: 5
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2>
```

DSAssignment2 main

weather-sample-data.txt Client.java AggregationServer.java AggregationServerTest.java ContentServer.java

```
11 public class AggregationServerTest { new *
77     public void testGetByIdInvalid() {
88     }
89
90     // Test handling GET request and retrieving weather data
91     @Test new *
92     public void testHandleGetRequest() throws IOException {
93         // Add mock weather data
94         JSONObject mockData = new JSONObject();
95         mockData.put("id", "server1");
96         mockData.put("temperature", 25);
97         server.weatherData.put(mockData);
98     }
```

Run AggregationServerTest

AggregationServerTest 34 ms Tests passed: 5 of 5 tests - 34 ms

- ✓ testHandleGetRequest 26 ms
- ✓ testGetByIdInvalid() 3 ms
- ✓ testGetByIdValid() 3 ms
- ✓ testGetDataWithExp 1 ms
- ✓ testGetDataWithValid 1 ms

Process finished with exit code 0

89:1 CRLF UTF-8 4 spaces

Windows PowerShell

```
ent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir":"S","time_zone":"CST","air_temp":13.3,"c
loud":"Rainy","local_date_time_full":"20230715160000","local_date_time":"25/04","name":"Adelaide (Lightsview)","id":"IDS60903","state
":"SA","press":1023.9,"lat":-35.9},{ "apparent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir
":"S","time_zone":"CST","air_temp":20.3,"cloud":"Sunny","local_date_time_full":"20230715160000","local_date_time":"17/04","name":"Ade
laide (Mount Baker)","id":"IDS60904","state":"SA","press":1023.9,"lat":-35.9}]
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> javac -cp C:\Users\DELL\Downloads\json-20140107.jar AggregationS
er.java Client.java ContentServer.java LamportClock.java
PS C:\Users\DELL\Desktop\DSAssignment2\DSAssignments\Assignment2> java -cp ".;C:\Users\DELL\Downloads\json-20140107.jar" AggregationS
erver.java
Aggregation server started on port number 4040
Received JSON: [{"apparent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir":"S","time_zone":"
CST","air_temp":13.3,"cloud":"Partly cloudy","local_date_time_full":"20230715160000","local_date_time":"15/04","name":"Adelaide (West
Terrace / ngayirdapira)","id":"IDS60901","state":"SA","press":1023.9,"lat":-34.9},{ "apparent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,
"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir":"S","time_zone":"CST","air_temp":13.3,"cloud":"Cloudy","local_date_time_full":"202
30715160000","local_date_time":"10/04","name":"Adelaide (Woodville)","id":"IDS60902","state":"SA","press":1023.9,"lat":-35.9},{ "appar
ent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir":"S","time_zone":"CST","air_temp":13.3,"c
loud":"Rainy","local_date_time_full":"20230715160000","local_date_time":"25/04","name":"Adelaide (Lightsview)","id":"IDS60903","state
":"SA","press":1023.9,"lat":-35.9},{ "apparent_t":9.5,"wind_spd_kmh":15,"rel_hum":60,"lon":138.6,"dewpt":5.7,"wind_spd_kt":8,"wind_dir
":"S","time_zone":"CST","air_temp":20.3,"cloud":"Sunny","local_date_time_full":"20230715160000","local_date_time":"17/04","name":"Ade
laide (Mount Baker)","id":"IDS60904","state":"SA","press":1023.9,"lat":-35.9}]
```