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DATA COMMUNICATIONS (COMP 4985)

ANDROID GPS – TESTING DOCUMENT

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TEST CASES

Test Number	Test	Tool/Application	Expected Outcome	Pass/Fail
1	Website running with no server	Application	Website displays the data previously collected	Pass
2	Website running with no clients	Application	Website displays the empty table/map	Pass
3	Website running with multiple clients	Application	Website refreshes and displays the new data as received	Pass
4	Server receiving data from multiple clients	Application	Server adds the data appropriately to XML	Pass
5	Client sending data over Wi-Fi	Application	Data is received by the server	Pass
6	Client sending data over 3G	Application	Data is received by the server	Pass
7	Client sending to no server	Application	No data is received and app does not crash	Pass
8	Address reverse lookup accurate	Application	Rough address is correct or very close	Pass

FIGURE 1 – NO SERVER

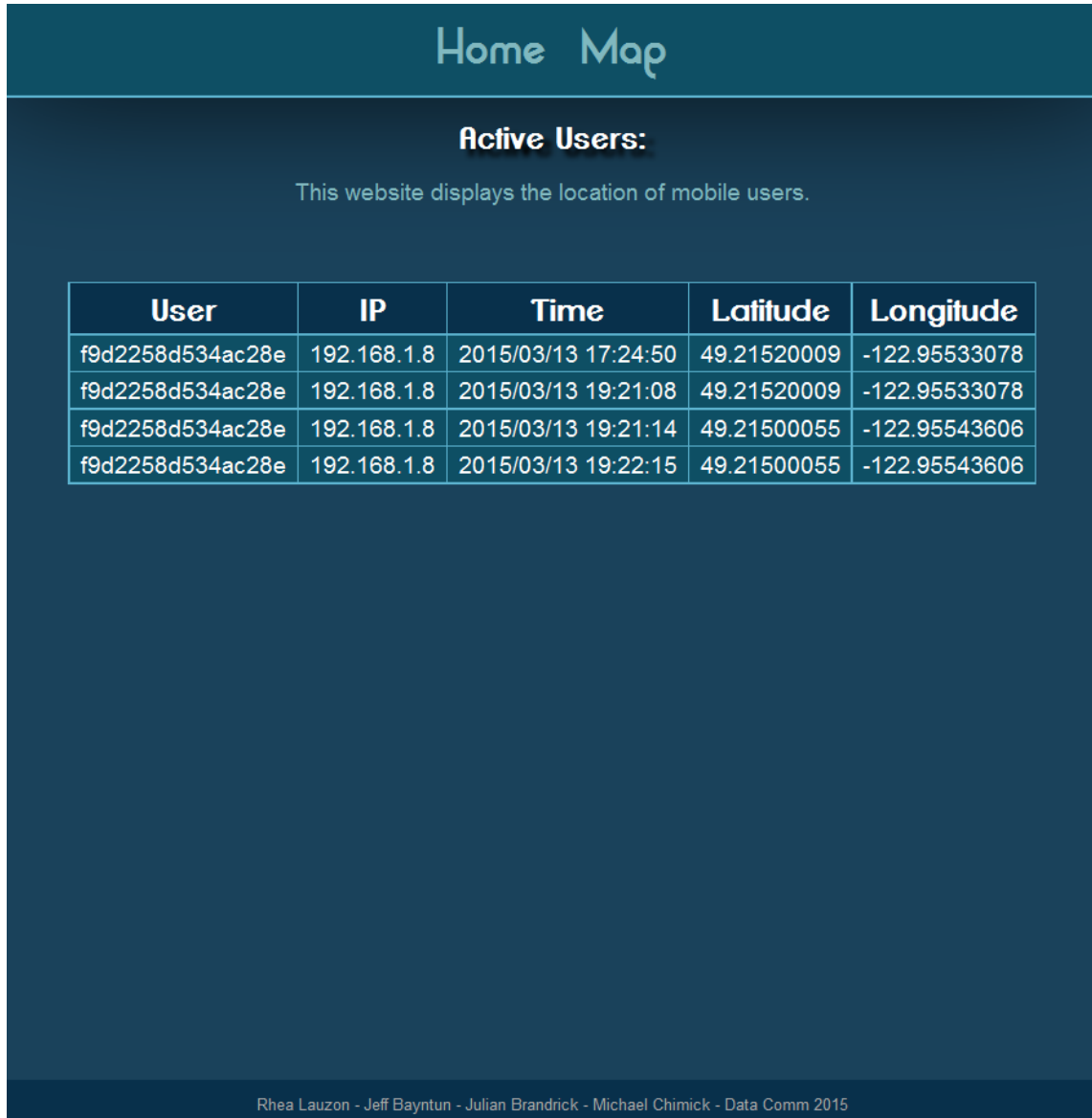


FIGURE 2- NO CLIENTS/DATA

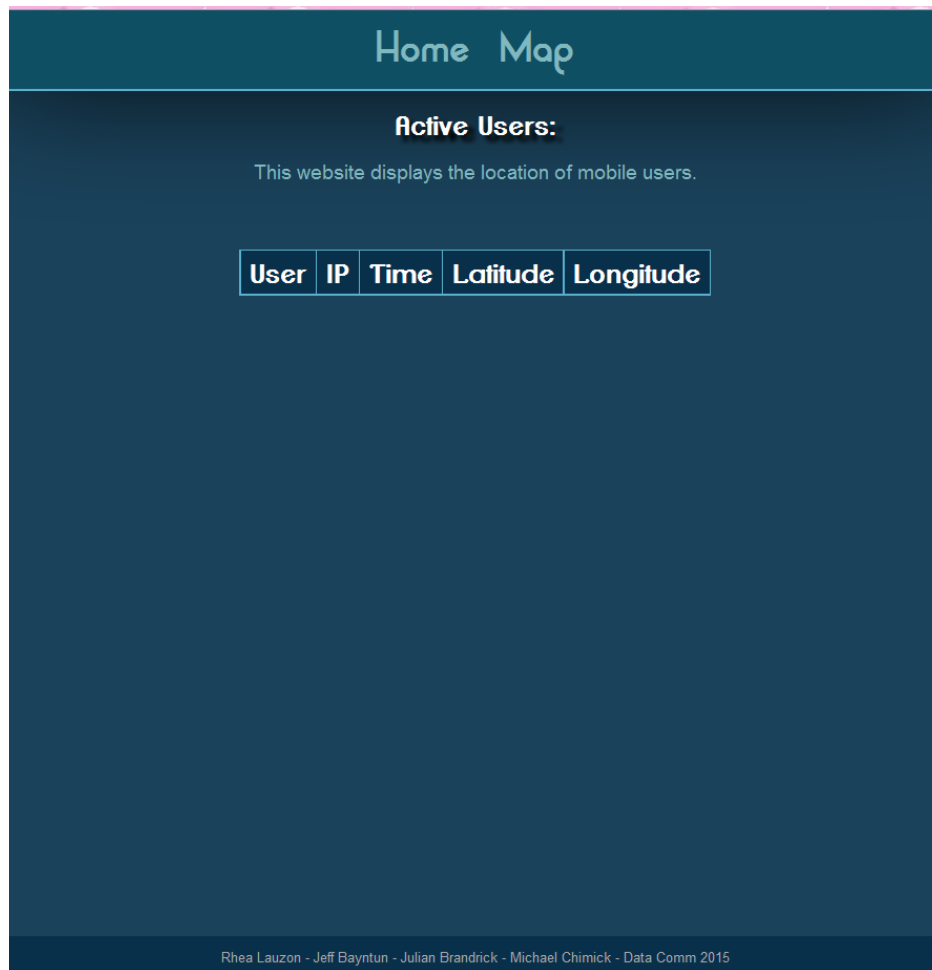


Figure 3 – Multiple Clients Website

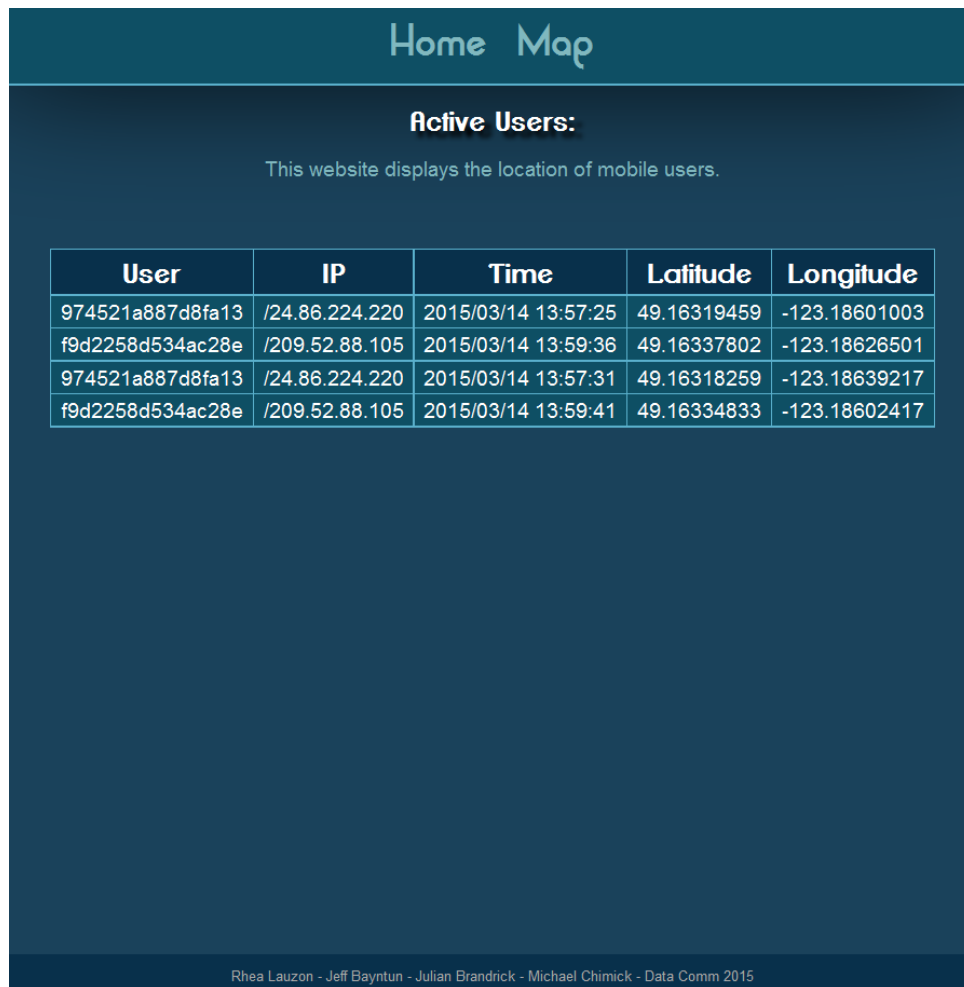
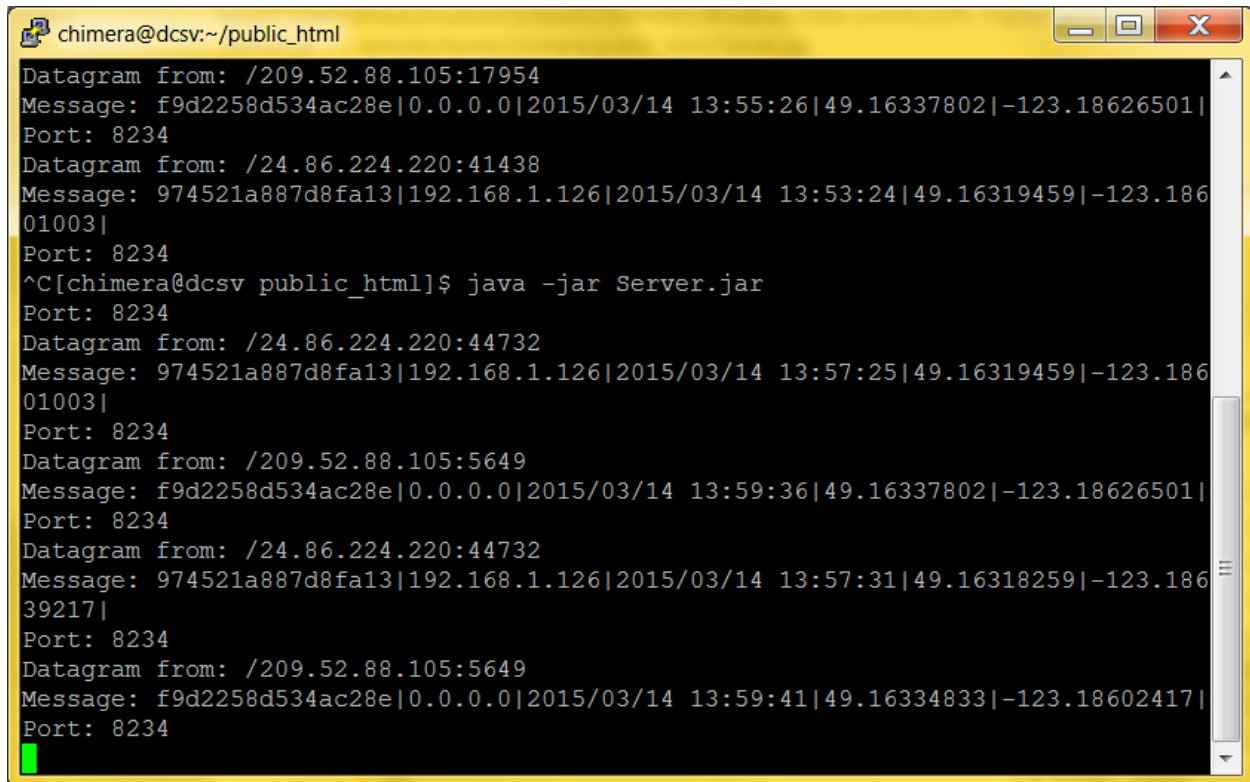


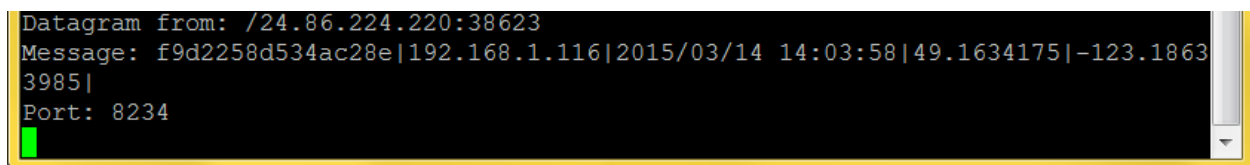
FIGURE 4 – SERVER RECEIVING FROM MULTIPLE CLIENTS



A terminal window titled "chimera@dcsv:~/public_html" with standard window controls. The terminal displays a series of log messages received from multiple clients. Each message block includes a "Datagram from:" line with an IP address and port, a "Message:" line with a long alphanumeric string, a timestamp, and a "Port: 8234" line. The messages are received from various IP addresses including 209.52.88.105, 24.86.224.220, and 192.168.1.126. A command prompt is visible in the middle of the log stream.

```
chimera@dcsv:~/public_html
Datagram from: /209.52.88.105:17954
Message: f9d2258d534ac28e|0.0.0.0|2015/03/14 13:55:26|49.16337802|-123.18626501|
Port: 8234
Datagram from: /24.86.224.220:41438
Message: 974521a887d8fa13|192.168.1.126|2015/03/14 13:53:24|49.16319459|-123.186
01003|
Port: 8234
^C[chimera@dcsv public_html]$ java -jar Server.jar
Port: 8234
Datagram from: /24.86.224.220:44732
Message: 974521a887d8fa13|192.168.1.126|2015/03/14 13:57:25|49.16319459|-123.186
01003|
Port: 8234
Datagram from: /209.52.88.105:5649
Message: f9d2258d534ac28e|0.0.0.0|2015/03/14 13:59:36|49.16337802|-123.18626501|
Port: 8234
Datagram from: /24.86.224.220:44732
Message: 974521a887d8fa13|192.168.1.126|2015/03/14 13:57:31|49.16318259|-123.186
39217|
Port: 8234
Datagram from: /209.52.88.105:5649
Message: f9d2258d534ac28e|0.0.0.0|2015/03/14 13:59:41|49.16334833|-123.18602417|
Port: 8234
```

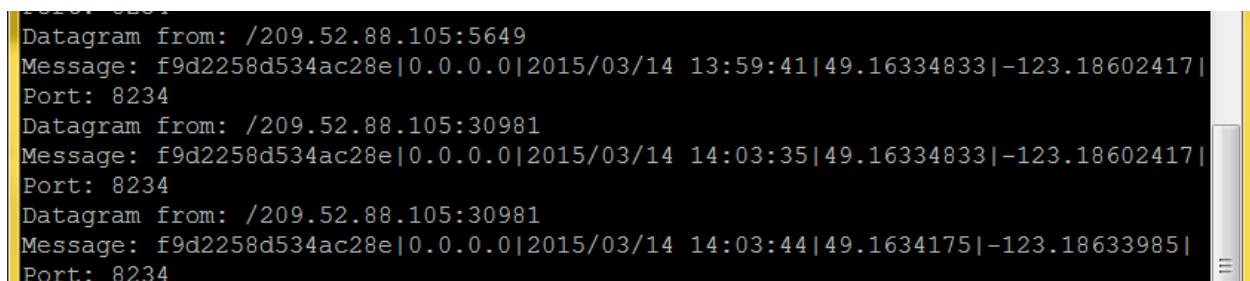
FIGURE 5 – SERVER RECEIVING FROM CLIENT OVER WIFI



A terminal window showing a single log message received from a client. The message includes a "Datagram from:" line with IP 24.86.224.220 and port 38623, a "Message:" line with a long alphanumeric string, a timestamp, and a "Port: 8234" line.

```
Datagram from: /24.86.224.220:38623
Message: f9d2258d534ac28e|192.168.1.116|2015/03/14 14:03:58|49.1634175|-123.1863
3985|
Port: 8234
```

FIGURE 6 – SERVER RECEIVING FROM CLIENT OVER 3G



A terminal window showing multiple log messages received from a client. The messages include "Datagram from:" lines with IP 209.52.88.105 and various ports, "Message:" lines with long alphanumeric strings, timestamps, and "Port: 8234" lines.

```
Datagram from: /209.52.88.105:5649
Message: f9d2258d534ac28e|0.0.0.0|2015/03/14 13:59:41|49.16334833|-123.18602417|
Port: 8234
Datagram from: /209.52.88.105:30981
Message: f9d2258d534ac28e|0.0.0.0|2015/03/14 14:03:35|49.16334833|-123.18602417|
Port: 8234
Datagram from: /209.52.88.105:30981
Message: f9d2258d534ac28e|0.0.0.0|2015/03/14 14:03:44|49.1634175|-123.18633985|
Port: 8234
```

FIGURE 7 – CLIENT SENDING TO NO SERVER

App does not crash but you are unable to detect the connection considering it is UDP.

FIGURE 8 – ADDRESS LOOKUP

