Maptivity

Conor O’Neill, Kaz Eslami, Cody Douglass

Multimedia, Hypertext, and Information Access
Dr. Edward A. Fox

Virginia Tech Blacksburg VA 24061
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Outline

- Project Recap
- Progress
- Work Completed
- Finishing Touches
- Obstacles/Lessons Learned
Project Recap

- Real-time data visualization
- Vital for operating conditions and business performance
- Working with IT Engagement and Experience @ VT
Progress

- Parsed phone data
- Area code to geolocation DB
- Websockets framework
- Front-end improvements
- Time-scaled playback simulations
Work Completed

Data
Phone Data

- Received two years of phone data from our client
- Parsed data, extracted area codes/country codes to translate into geolocations
  - Stored DB dictionary on server
- Employed the data to run simulations as viable proof of concept
- International numbers
<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-01-07 03:11:00</td>
<td>37.22957</td>
<td>-88.41394</td>
</tr>
<tr>
<td>2017-01-07 03:11:31</td>
<td>37.22957</td>
<td>-88.41394</td>
</tr>
<tr>
<td>2017-01-07 03:12:41</td>
<td>38.82931</td>
<td>-78.47648</td>
</tr>
<tr>
<td>2017-01-07 03:14:38</td>
<td>36.81904</td>
<td>-76.27494</td>
</tr>
<tr>
<td>2017-01-07 03:16:04</td>
<td>41.88675</td>
<td>-88.20396</td>
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<tr>
<td>2017-01-07 03:21:31</td>
<td>37.22957</td>
<td>-88.41394</td>
</tr>
<tr>
<td>2017-01-07 03:22:46</td>
<td>47.54502</td>
<td>-82.65813</td>
</tr>
</tbody>
</table>

**Notes:**
- The table contains data for timestamps, latitude, and longitude. Each row represents a single data point with the timestamp in ISO format, followed by the latitude and longitude values.
- The data appears to be consistent with a geographical tracking or logging application.
Work Completed

Map styling/UI, playback simulation
Demo
Lessons Learned

- Client communication/interaction will not always go smoothly
- Learning curve with new technologies, tech stacks
- Team management
Finishing Touches

- Employ existing websockets framework and API endpoint for real-time data feed
- Polish UI
- Add additional features for data analytics
- Deploy to EC2 Instance
Questions?