



Senior Project, 2018, Summer

BreazeHome 5.0: Local Scoop

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Problem

- BreazeHome, led by Dr. Masoud Sadjadi, is a real-state website project
- BreazeHome provides information on crime and transportation just around selected property.
- Crime implementation is insecure.
- Transportation has poor readability.

Solution

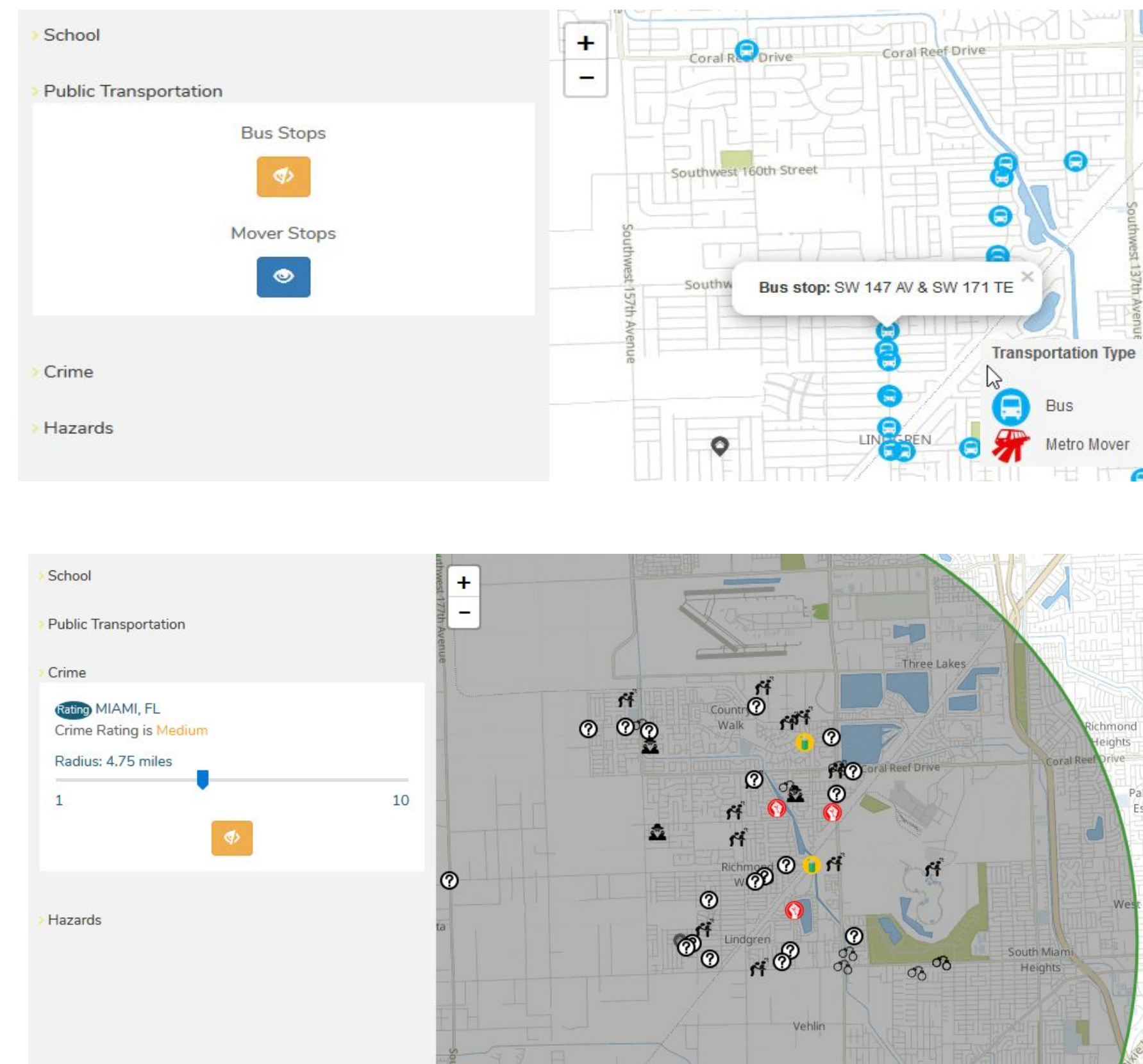
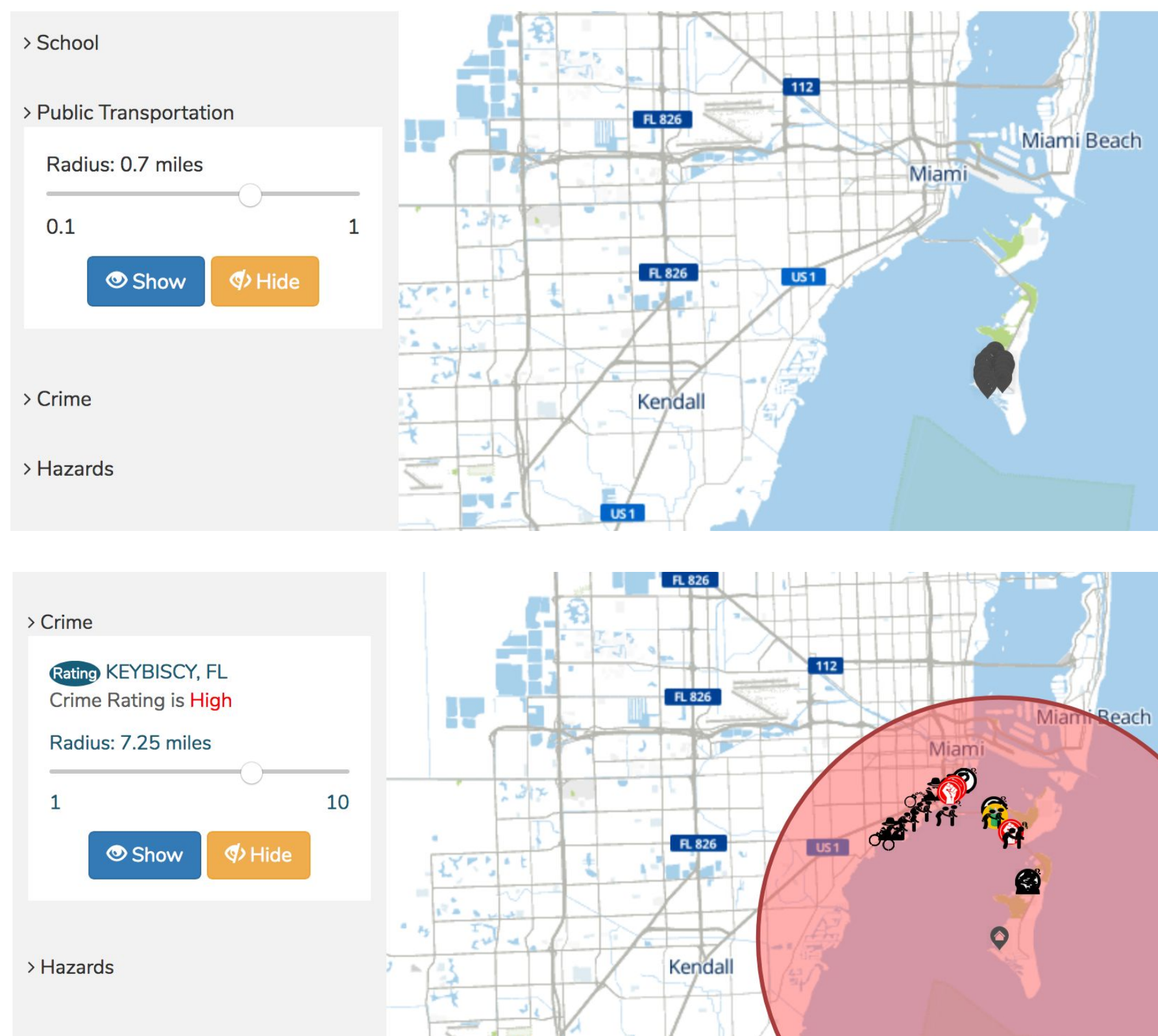
- Refactor and implement crime service to request crime data from external API.
- Finish public transport feature.
- Add "Localscoop" page with general info.
- Add crime activity heatmap for localscoop.
- Provide better UI and

Current System

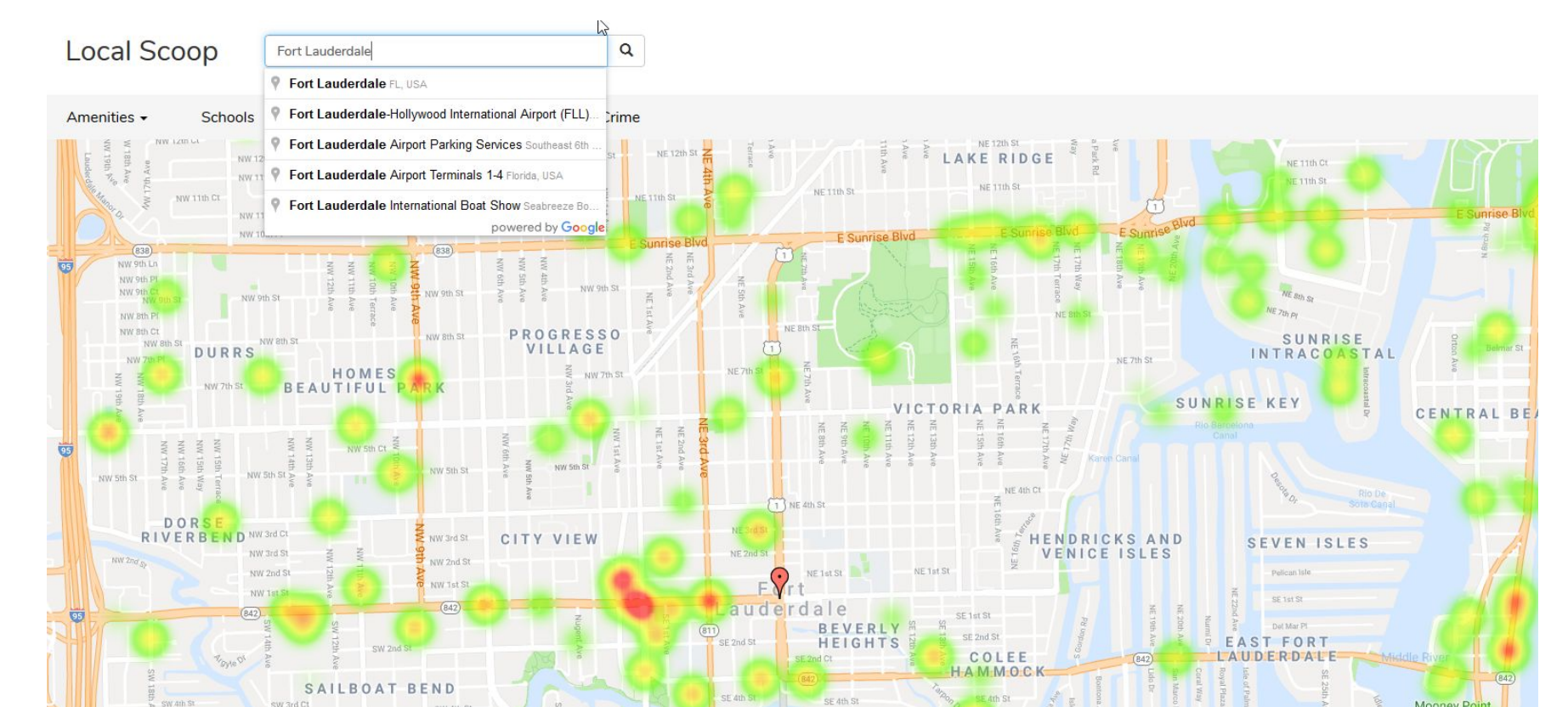
- Crime implementation depends on JSONP request and gets blocked.
- No backend present for crime.
- Transportation info unclear.
- No heatmap implementation.

Screenshots

Changes



New Local Scoop page with heatmap:



Requirements

- Display crime information around property.
- Display heatmap of crime activity on localscoop.
- Heatmap is responsive and updates as the user moves the map.
- Display transportation info in an understandable clear way.

Implementation

System Design and Implementation

Front-End: AngularJS, HTML, CSS, Javascript, Bootstrap, Google Maps API

Back-End: Django REST

Database: PostgreSQL

Version Control: Git

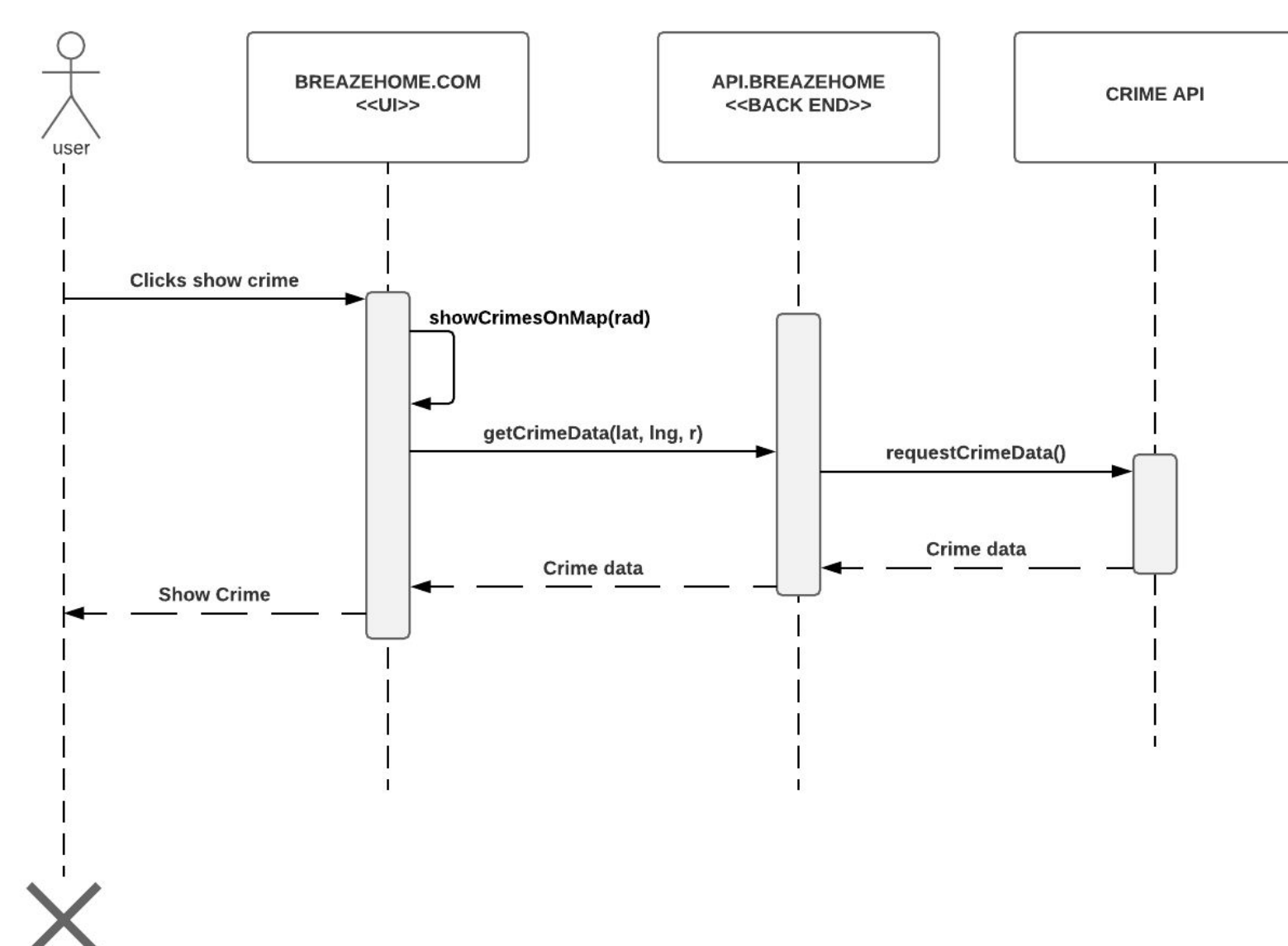


Verification

Integration Tests:

- Test Case ID:** crime_service
- Test Summary:** When Crime button toggle is clicked, service is called and backend/crime
- Precondition:** Get request with lat, lng and radius to /crime.
- Expected Result:** json response with crime events and information in that distance range

Object Design



Summary

- Crime and transport information more reliably accessible and readable.
- Eliminated and changed insecure scripts that got blocked.
- UI changes making it more user friendly and intuitive.
- New local scoop page which makes it easy to go over areas for info.
- New crime heatmap for a different representation of crime information just as activity.

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