

# Local Reports

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# Description

Local Reports allows users to report issues with local roads, like potholes, missing street signs, flooded streets, and so on. Each report has a location attached and an urgency level to indicate the immediacy of the issue. Users can view a map populated with locations of all current issues so they can avoid these issues if needed.



# Features

- Secure user authentication & authorization
- Submit a report with location attached
- View all reports and the map populated with corresponding locations
- Sort reports by date or urgency level



# Planning - User Stories

A logged-in user can submit a report that is connected to a specific point on the map to show exactly where the problem with the road is.

Users can view the list of reports separated into pages and sorted by date or by urgency level.

Users can see a map with markers for all locations of reports submitted thus far.



# Planning - Database

The database includes the following tables:

- **User** -- id, username, password (encrypted), collection of Reports
- **Report** -- id, title, description, urgency level, Location, User, date-time created, date-time of last edit
- **Location** -- id, latitude & longitude, Report

Reports have a one-to-one relationship with Locations

Reports have a many-to-one relationship with Users




# Technology Stack

- Java
- JavaScript
- Google Maps API
- HTML
- CSS
- Spring Boot
- Spring Security
- Thymeleaf
- MySQL



# Demo - register & login

LOCAL REPORTS


## REGISTER NEW USER

Username

Password

Verify Password

REGISTER

LOCAL REPORTS

## LOGIN

Username

Password


LOGIN

New to Local Reports? [Register now](#)





# Demo - read the reports

As a list, sorted & paginated



LOCAL REPORTS

ALL REPORTS

Urgency  Descending  **SORT**

< 2 >

Trees in road

Urgency level: 3

9/9/19 6:49 PM

by *ScoobyDoo*

Multiple trees are lying in the middle of Odell Street, just west of Kingshighway. They're blocking traffic!

Stop Sign Missing!

Urgency level: 1

9/9/19 4:19 PM

by *Michelle*


The stop sign is missing at the intersection of Arsenal and Oak Hill Ave! Cars are not stopping and I have seen people almost get hit three times today. This needs to be fixed immediately!

< 2 >

As a single report

LR LOCAL REPORTS [MAP](#) [ABOUT](#) [LOGOUT](#) [LACEY](#)

FLOODING



Map Satellite

Urgency level: 5

9/9/19 5:34 PM

by *lacey*

There's flooding on the south side of Arsenal street across from the park, close to MoKaBe's. The eastbound lane is impassible.

Edit





# Demo - submit report

LR

LOCAL REPORTS

MAP

ABOUT


LOGOUT

LACEY

Search by location...

Map

Satellite



Map data ©2019 Google Terms of Use Report a map error

View Reports

Submit Report

Report Title

Flooding

Report Description

There's flooding on the south side of Arsenal street across from the park, close to MoKaBe's. The eastbound lane is impassible.

Urgency level (?)

1 - Currently Critical, Life-Threatening, Needs Immediate Action

2 - Potentially Critical, Urgent but Non-Life-Threatening

3 - Necessary

4 - Recommended

5 - No Priority, Take Note Only

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SUBMIT REPORT

Steps to submit a report

1. Select "Submit Report" tab

2. Drop a pin on the map (or enter location in the search bar)

3. Fill out report title & description

4. Select the level of urgency

5. Hit Submit!

Toggle switch

Fill in all the details of the road issue here

Helpful step-by-step instructions



# Demo - explore map & reports

LR LOCAL REPORTS

MAP ABOUT LOGOUT SCOOBYDOO

Search by location...

View Reports Submit Report

Sort by Order by SORT

Map Satellite

Major Pothole Urgency level: 4  
There's a major pothole here!

St. Louis

Steps to submit a report

1. Select "Submit Report" tab
2. Drop a pin on the map (or enter location in the search bar)
3. Fill out report title & description
4. Select the level of urgency
5. Hit Submit!

Traffic Light Out Urgency level: 3  
9/9/19 4:04 PM by lacey  
The traffic light at the intersection of W. Argonne & Geyer (located at one entrance to the Kirkwood Park / Community Center parking lot) is completely out.

Stop Sign Missing! Urgency level: 1  
9/9/19 4:19 PM by michelle  
The stop sign is missing at the intersection of Arsenal and Oak Hill Ave! Cars are not stopping and I have seen people almost get hit three times today. This needs to be fixed immediately!

Major Pothole Urgency level: 4  
9/9/19 4:35 PM by ScoobyDoo  
There's a major pothole here!

Toggle to switch between list of reports & new report form

Click on a marker to view the report info or to be taken to this report page



# What I Learned

- Spring Security for secure user login
- Learned some JavaScript to connect my app to the Google Maps API
- Integration with the Google Maps API
- Pagination of and sorting data



# What's Next

- Give the admin purpose -- in the future, an admin will be able to:
  - Mark a report as open / closed / spam
  - Mark a report as duplicate if the problem has already been reported
  - Edit the urgency level of any report even if they didn't create it
- Create an admin dashboard to give the admin an easy screen to work from
- Deploy the application

