

The Hurricane Helper App

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Proposal Overview

- Create an app to help during natural disasters
- Acquire the help of the National Weather Service
- Acquire the cooperation of organizations running shelters
- Receive support from local government (Lafayette)
- Launch a test in Lafayette, Louisiana




Background Information and The Problem

Background

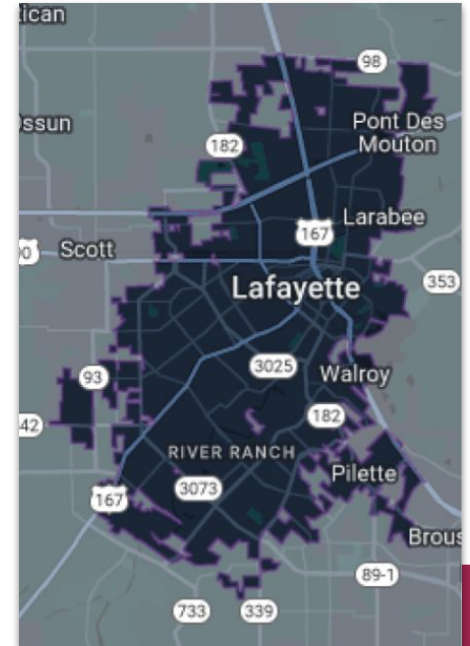
- App modeled after similar apps
- Will use GPS

The Problem

- Hurricanes cause a lot of damage
 - People are unaware how to receive help
 - Warnings can be too late
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Objective - Our Solution

- Preventative solution (App)
- Form a partnership with NWS for their resources
 - Inform communities ahead of time using said resources
- Easier way for communities to help each other (Apps other features)
- Guide people to shelters safely (GPS)
- Maintain communication with shelters (GOHSEP)
- Get funding from the local government
- Test in Lafayette -> tweak the app



Technical Approach - Requirements

Personnel Requirements:

- Project Manager
- Team Lead Developer
- Front-end Developer
- Full-stack developer
- Quality Analyst
- Customer Service Personnel

Other Requirements:

- Office Space
- Communication between partners
 - NWS
 - Louisiana local government
 - Lafayette, Louisiana emergency shelters

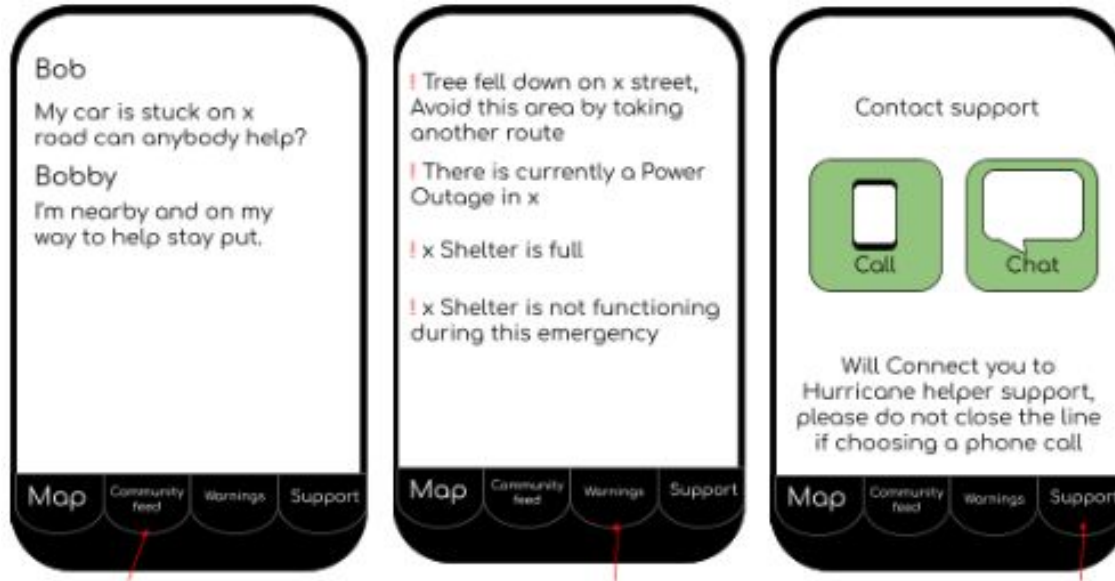


Technical Approach - Architecture



The main part of the app will be the map section. Using GPS we would be able to locate shelters nearby in the area. In addition, it would inform the user of the current status concerning capacity at the shelter. As seen in the second image, when you select a shelter, it will inform you how many other shelters are in the same or closer vicinity to the user at the top of the screen.

Technical Approach - Implementation



Additional features include a forum-like area, video feed section, warnings section, and support section.

Technical Approach - Quality Assurance

1. Goals

- a. Create partnerships with local shelters and NWS
- b. Focus on app design
- c. Server efficiency

2. Personnel

- a. Create team of experienced individuals
- b. Open customer service

3. Funding

- a. Task schedule

4. Debugging

- a. Beta testing



Project Scheduling

<u>Date</u>	<u>Task</u>
1/01/2023	<ul style="list-style-type: none">- Meet with local government of Louisiana to discuss the development of the project- Contact NWS to discuss the project and partnership
2/01/2023	<ul style="list-style-type: none">- Meet with local emergency centers regarding partnerships
2/28/2023 - 8/01/2023	<ul style="list-style-type: none">- App development
8/15/2023 - 9/30/2023	<ul style="list-style-type: none">- Beta Testing
10/15/2023 - 1/01/2024	<ul style="list-style-type: none">- Debugging Stage
1/15/2024 - 4/30/2024	<ul style="list-style-type: none">- Further Development- Public release by the end of this period
6/15/2024 - 8/01/2024	<ul style="list-style-type: none">- Collect feedback from users; changes implemented in response

<u>Category</u>	<u>Expected Cost</u>
Database	\$24,000
Servers	\$12,000
Push Notification Server	\$3,600
Analytics Server	\$3,600
Imager Server	\$3,600
Firewalls	\$3,600
Content Delivery Network	\$3,600/
<u>Workers</u>	
- Project Manager	Project Manager Salary: \$89,000
- Team Lead Developer	Lead Developer Salary: \$100,000/year
- Front-End Developer	F.E Developer Salary: \$77,000
- Full-Stack Developer	F.S Developer Salary: \$79,000
- Quality Analyst	Quality Analyst Salary: \$59,000

Costs for Implementation

Total Estimated Costs:

\$470,000

Total Actual Costs:

\$458,000

Costs After Implementation

<u>Category</u>	<u>Expected Cost</u>
Maintenance	\$100,000/year
Customer Service Staff (15)	\$2,940/month (seasonal, June - Nov. [6 months]), per worker

Total Estimated Costs:

\$110,000

Total Actual Costs:

\$102,940



Expected Results

- Ensure servers run smoothly
- App is easily accessible for all users
 - Users can easily navigate through the app
- App stays constantly updated with any weather changes
- Efficient partnership with local emergency shelters



Conclusion

- Create an intuitive app to help people during hurricanes
- Project will take around 1.5 or 2 years to complete
 - 6 month developing period
 - 12 month testing period
- Will cost around \$635,000
 - Extra costs expected due to app maintenance



References

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