



Campus Access

Team 2

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Background Summary

- 3.6 million Americans wheelchair-bound (1%)
 - Equates to about 350 wheelchair users on Pitt's campus
- 14 million Americans visually impaired (4%)
 - Equates to about 1,280 people on campus

1 wheelchair user in
91 students

1 visually impaired person in
25 students

[1] Admin. "U.S. Wheelchair User Statistics." Pants Up Easy, 29 July 2017, <https://www.pantsupeasy.com/u-s-wheelchair-user-statistics/>

[2] "Study Finds Most Americans Have Good Vision, but 14 Million Are Visually Impaired." National Institutes of Health, U.S. Department of Health and Human Services, 9 Dec. 2015, <https://www.nih.gov/news-events/news-releases/study-finds-most-americans-have-good-vision-14-million-are-visually-impaired>



Background Summary (cont'd)

- Accessibility issues in Pitt campus buildings
 - Information Science Building on N Bellefield Ave
 - Bathrooms in narrow staircases
 - No way of knowing these access issues beforehand



Problem Statement



No comprehensive guide is available to help navigate buildings



Campus disability resources are not always built with accessibility in mind



Lack of community among people with disabilities on campus



Our Solution

- Create a hybrid interface for wheelchair-bound and blind users to help navigate campus using a Google Maps interface
- List where accessible restrooms, entrances, and elevators are located for each building
- Commenting capability for users to share their accessibility experience in certain buildings

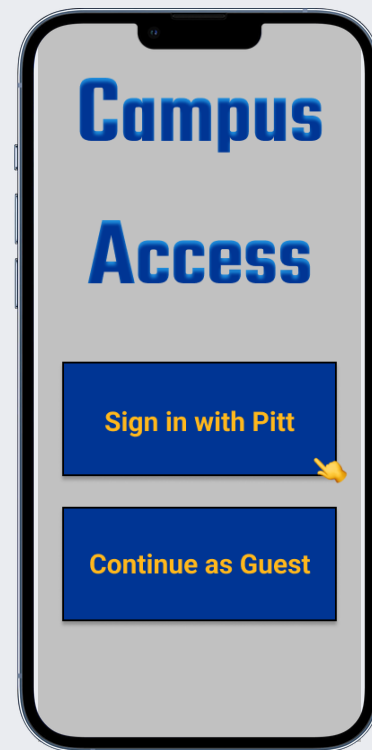


Constraints

- Mobile phone or computer with Internet access
- Text-to-speech settings enabled
- Operating system updated to latest version
- Our dependencies:
 - Pitt servers for authentication
 - Google Maps
 - Pitt Police



App Features (Use Case)





App Features (Use Case)



Profile Setup

Name: _____
Pitt email: _____

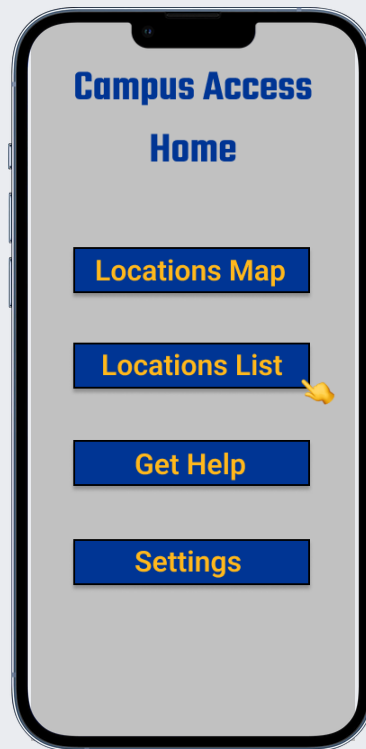
What disabilities would you like support for?

- ☒ Physical impairment/
wheelchair user
- ☐ Visual impairment

Create Account

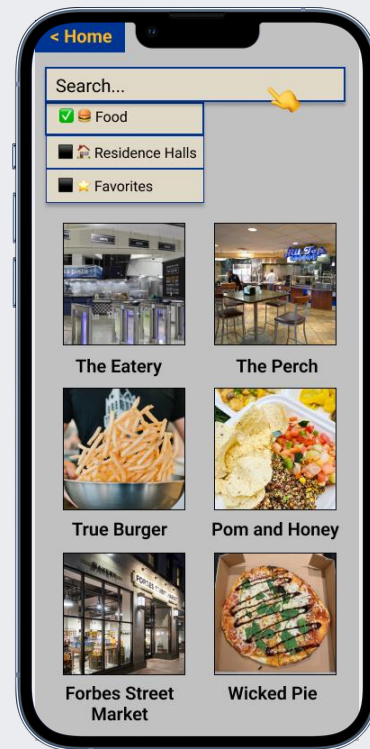


App Features (Use Case)



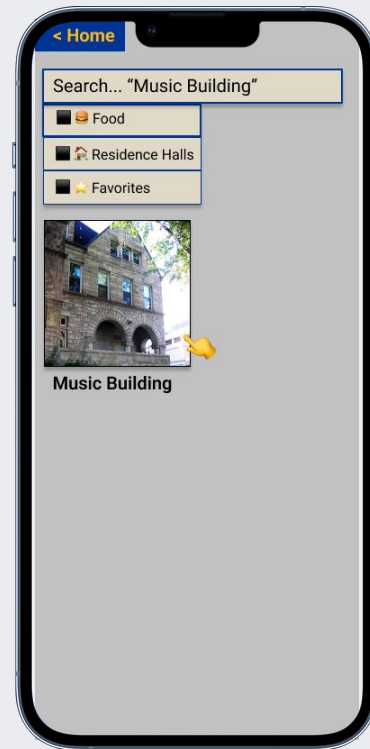


App Features (Use Case)



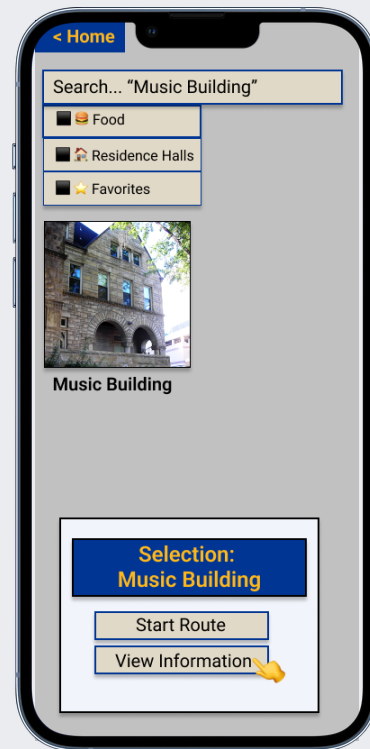


App Features (Use Case)



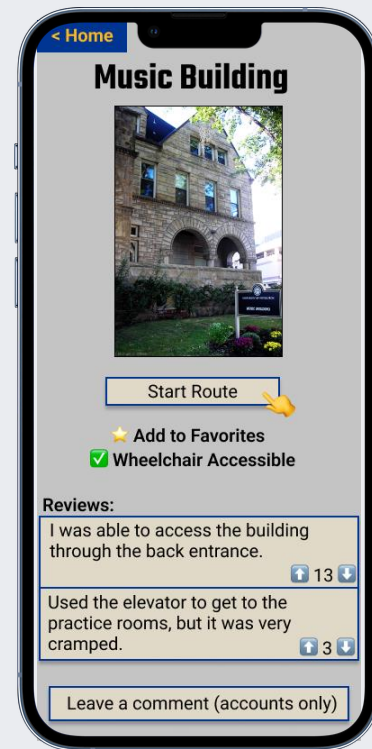


App Features (Use Case)



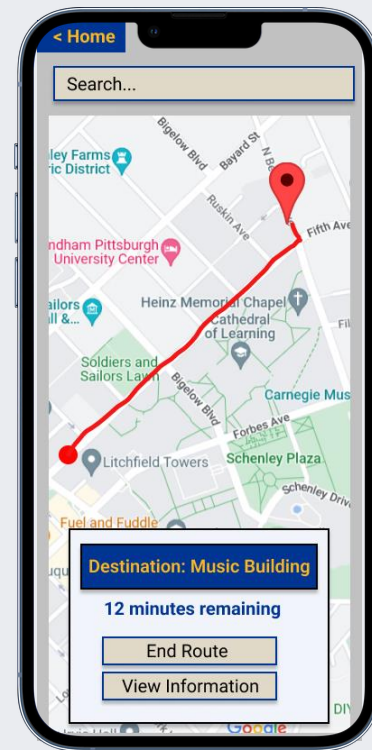


App Features (Use Case)



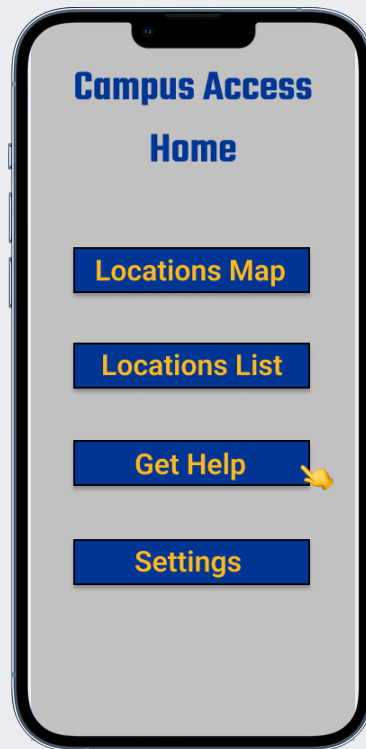


App Features (Use Case)





App Features (Use Case)





App Features (Use Case)







Tech / Backend



Mobile App





Built with 

Support for  **android 10**



Web Interface

Built with   

Support for    

Server (Cloud Hosting)

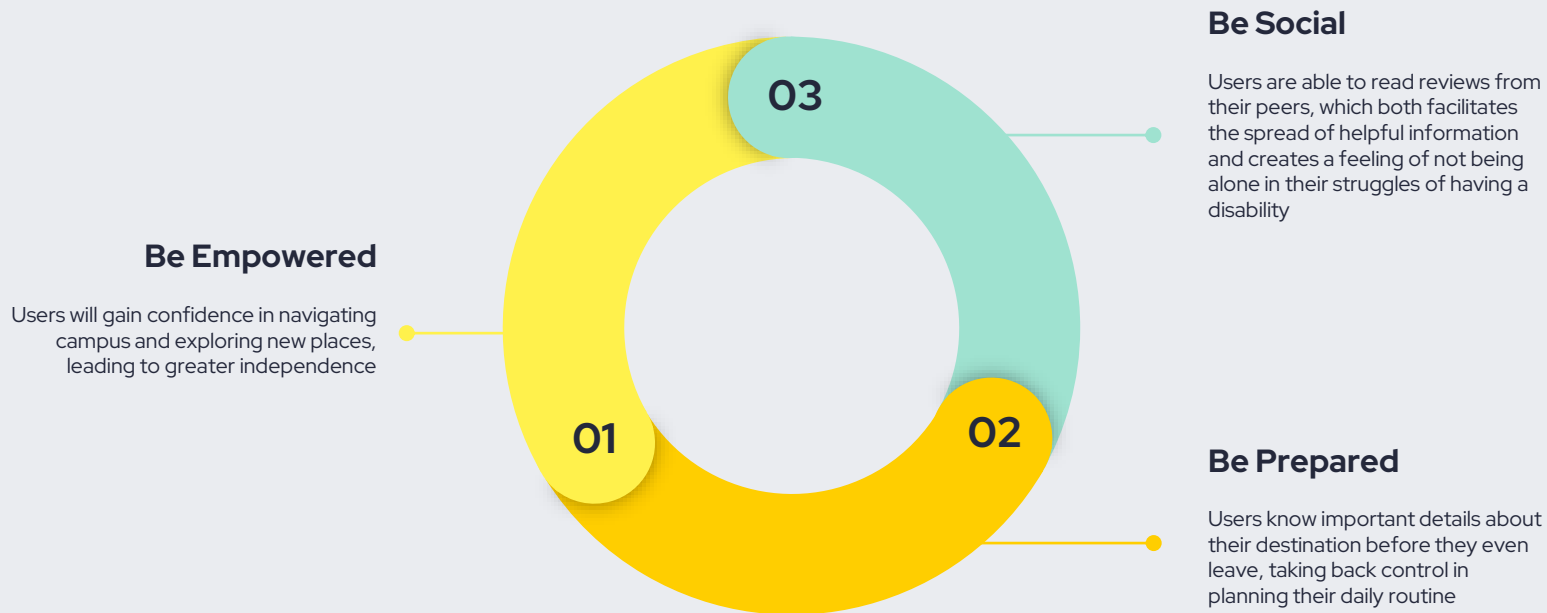


Database





Value and Benefits





Why Invest?

- Minimal market competition
- Set new standard in accessibility for disabled communities on campuses
- High scalability potential
 - Imagine Campus Access at every U.S. university



Closing Statement





Citations

[1] Admin. "U.S. Wheelchair User Statistics." Pants Up Easy, 29 July 2017, <https://www.pantsupeasy.com/u-s-wheelchair-user-statistics/>

[2] "Study Finds Most Americans Have Good Vision, but 14 Million Are Visually Impaired." National Institutes of Health, U.S. Department of Health and Human Services, 9 Dec. 2015, <https://www.nih.gov/news-events/news-releases/study-finds-most-americans-have-good-vision-14-million-are-visually-impaired>



References

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2. “Disability Resources and Services.” *Office for Equity, Diversity, and Inclusion | University of Pittsburgh*, 1 Aug. 2022, <https://www.diversity.pitt.edu/disability-access/disability-resources-and-services>.
3. Jagani, Sunil. “Mobile Website vs Wrapper Application – What to Use & When?” *AllianceTek Inc*, 7 Apr. 2020, <https://www.alliancetek.com/blog/post/2014/09/08/mobile-website-or-wrapper-application-e28093-what-to-use-when.aspx>.
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