

Project Report : All About Austin

Phase 1 - Team Amber

Team Members

Name, E-mail, Github User

Justin DuPont, justindpnt@gmail.com, justindpnt

Canyon Evenson, canyon@utexas.edu, cpe342

John Koelling, john.k.koelling@gmail.com, lucundus

Yixing Wang, yixing.wang@utexas.edu, AlienEdith

Grayson Watkins, graysonwatkins@gmail.com, Graysless

Zach Wempe, zdwempe@gmail.com, zachwempe

Project Leader

Canyon Evenson

URL to Repo, Google Docs

GitHub:

<https://github.com/lucundus/AustinData>

Google Docs:

<https://docs.google.com/document/d/1R-suefPzFPDNJkwbQ2wc0wpQ5aZYFyTxBIKfVDbHA-4>

Deployed Website :

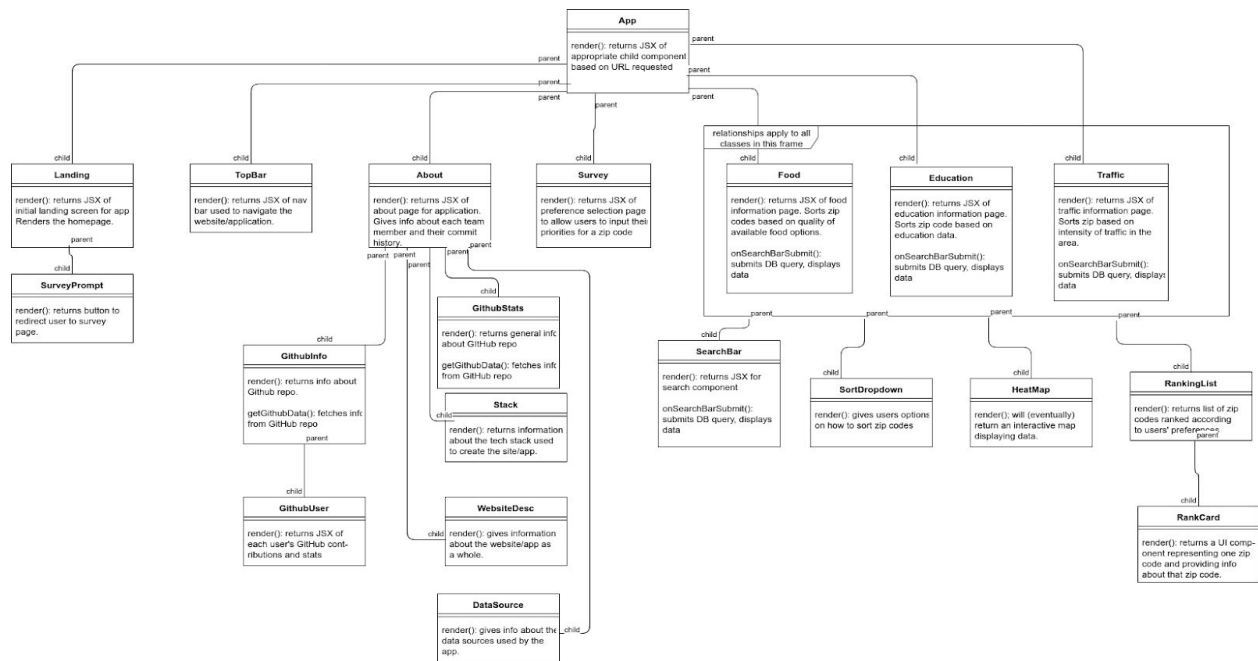
<http://www.allaboutaustin.info/>

Tasks Completed

- 5 user stories on issue board
- Static deployed site with splash screen, individual category focus screens, and login page on GCP
 - Pages are dynamically resizable to ensure visibility for varying screen resolutions
 - About Page
 - Explains team goal and the reason for this project's existence
 - Members are listed on page with bio, major, responsibilities, in addition to real-time info in regards to commits and issues from github api
 - Total github stats at bottom of page
 - Explanation of data sources utilized
 - Explanation of tools used in front end, back end, and database
 - Food Page
 - Placeholder for future implementation of individual category page in regards to food
 - Search bar functionality for certain zip codes in addition to sort by low to high or high to low (not functional)
 - Education Page

- Placeholder for future implementation of individual category page in regards to education
 - Search bar functionality for certain zip codes in addition to sort by low to high or high to low (not functional)
- Traffic Page
 - Placeholder for future implementation of individual category page in regards to traffic
 - Search bar functionality for certain zip codes in addition to sort by low to high or high to low (not functional)
- Splash Page
 - Welcome screen for user
 - Slideshow of pictures
 - Replaced in future with higher quality photos
 - Start button begins user towards survey page
- Survey
 - Employs sliders to receive user input in regards to importance of food, education, and traffic
 - Values at bottom dynamically changed to represent user input
 - In current implementation must click outside of slider to reflect change in value
- Stats derived on About page directly from github
 - Explained in About page above
 - Information pulled from github api dynamically to represent user contributions for each member of the team
- Initial pull of Zomato and Austin Government Databases for Traffic Density and Education
 - See addendum for how to access MongoDB Database
- Ratings
 - We encountered issues with the zomato database in terms of daily calls to the API
 - We resolved this issue by manually pulling a sequence of ratings at our maxed out number of queries until a suitable dataset was accumulated
 - In the future, we will automate this process by running a daemon on the server that will periodically pull from the zomato database
 - No issues were encountered with scraping education and traffic databases, mongoDB is reflective of the scraped data.

Design:



For Higher Resolution :

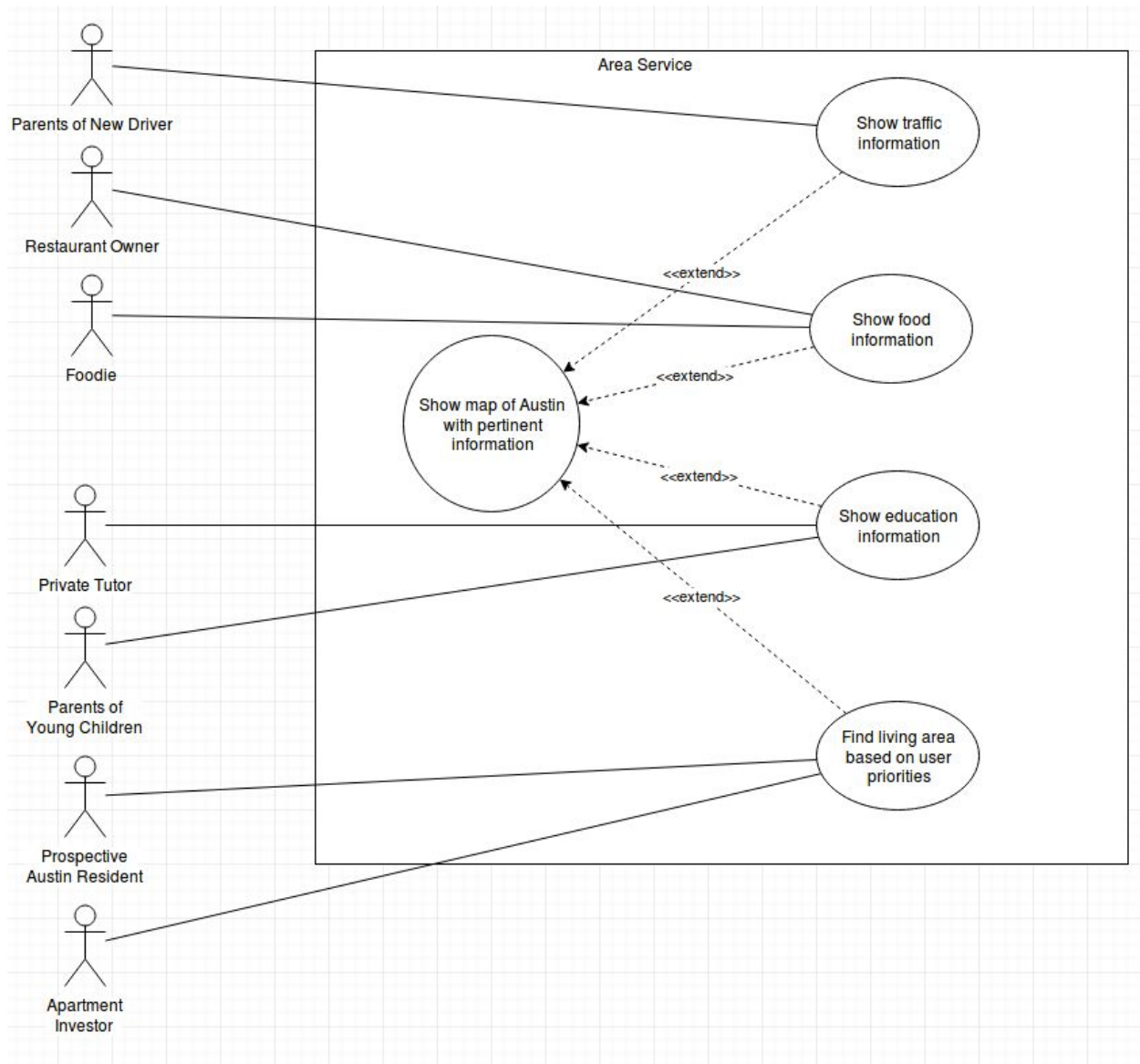
<https://github.com/Iucundus/AustinData/blob/master/UMLClassDiagramAllAboutAustin.png>

Requirements:

- User Stories

- User Story 1
 - <https://github.com/Iucundus/AustinData/issues/5>
- User Story 2
 - <https://github.com/Iucundus/AustinData/issues/6>
- User Story 3
 - <https://github.com/Iucundus/AustinData/issues/7>
- User Story 4
 - <https://github.com/Iucundus/AustinData/issues/8>
- User Story 5
 - <https://github.com/Iucundus/AustinData/issues/9>

- **Use Case Diagram**



Tools, Software, Frameworks:

- Namecheap: Obtained domain name from Namecheap.
- Frontend
 - npm: Node Package Manager that works with Javascript (React).
 - React: A frontend javascript library for building user interfaces.
 - react-router-dom: A package that makes routing available for React.
 - axios: A package for HTTP request in React
 - Bootstrap 4: A front-end Web framework that provides HTML and CSS-based design templates to beautify the user interfaces.
- Database
 - MongoDB / MongoDB Atlas: A NoSQL database, Atlas allows us to use cloud database.

- SODA, Socrata Open Data API: Data gathering API for Austin Government data.
- JSON.simple: Java library to streamline processing of JSON objects from online sources.
- Maven: Project build and dependency management.

Testing:

- Ran data scraping program and manually verified expected outputs
- Manually debugged and verified functionality of User Interface
- Resolve dependency issues across team for access to front end and back end of project

Addendum - Accessing MongoDB Database using Robo 3T:

1. Create new connection in Robo 3T
2. Choose "Direct Connection"
3. Set address: personal-shard-00-00-fxnjy.mongodb.net
4. Port: 27017
5. Select "Perform authentication" in Authentication tab
6. Database: admin
7. User Name: amber
8. Password: austindata
9. Auth Mechanism: SCRAM-SHA-1
10. Select "Use SSL Protocol" in SSL tab
11. Authentication Method: Self-signed certificate
12. Unselect "Use PEM Cert./Key"
13. Save connection
14. Connect