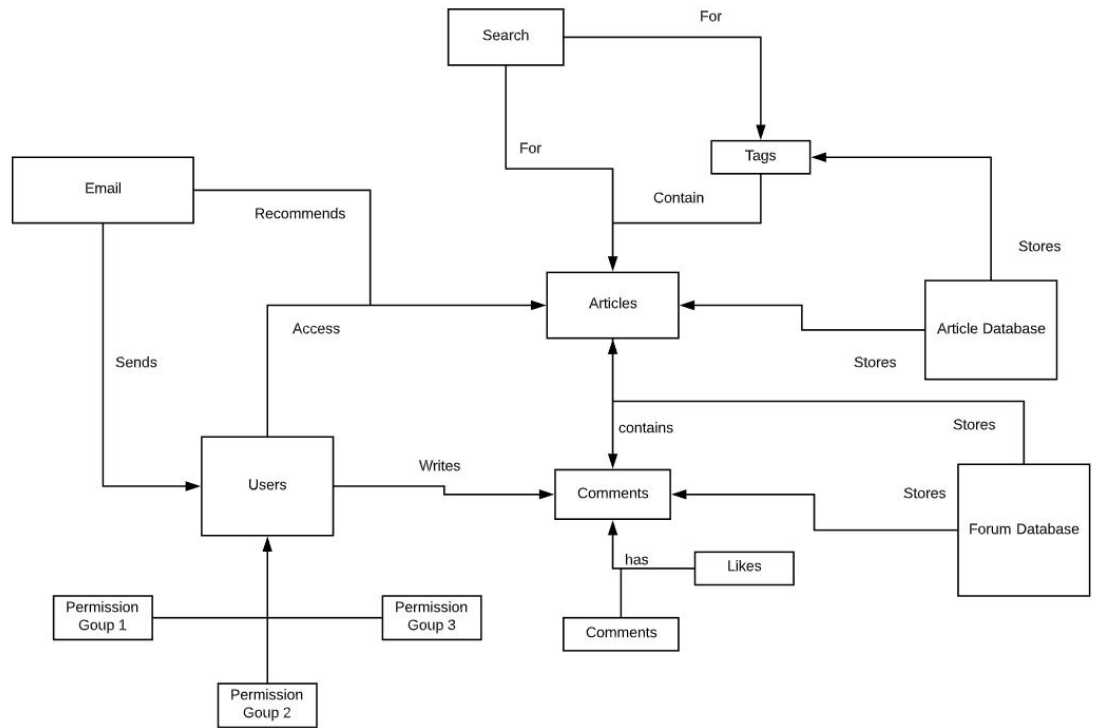Group 7
Jacob Boyd, Daniel Ortega, Jordan Aquino-Soloman, Kevin Hornibrook

1. Public and user engagement are rather low, and the company desires assistance in increasing user engagement.
2. Provide ease of analysis and an efficient database to allow growth and easy/quick searches with efficient algorithms for searching and storing, allowing users to find the content they want, as well as create the tools to facilitate user discussions and interaction between users.
3. Database System that will store additional information about user traffic to provide Civic Story the necessary information to see the easiest segment to growth, and where users are going on the website. This information will include the amount of clicks on each article, the number of clicks over different periods of time to reveal the growth of certain topics, the number of clicks per specific tag to show what people are focusing on, as well as other information that will be deemed important as development continues. Create and design a forum/user discussion section to allow greater sharing of information between users. A basic like and reply system will be included to facilitate continued discussions amongst users. A weekly email will send each registered user a series of articles pertaining to their most commonly viewed tags, as well as other articles from their area.
4. Current website has a lack of user interaction, and a rudimentary search system to provide users with what they want to see. The Forum will provide users with additional interaction and time on the website, and this can then be analysed by the analysis algorithms to see what users are doing, and where the current focus of CivicStory should be to gain more users. The efficient search and tag system will be easy to use and provide easier access to content for users to get the content they wish to see. The email will be further engagement with the community, and provide additional engagement when the user is not actively on the website.
5. Collect data from other websites and forum sites to see how users interact and how popular the sites are by interacting with a multitude of news websites, social media sites, and video viewing platforms, as these are the most common websites to use user discussions in response to articles and amongst other users. Use these lessons to design and implement a forum, building on the common ground amongst these different websites. View what companies use in analysis for growth and use this knowledge to design analysis algorithms by examining company growth reports that are available online, as well as business reports on different growing companies and the data that is focused on by these reports.

6. Reddit is a common forum system, and there are endless news websites such as the WSJ, Washington Post, NYT, etc… System will follow Reddit's design for a forum, and use the common tag system and subscription/profile systems from other news websites.

7. System will be modular, so it can easily be added to or modified if the user wants to analyze additional information.

8. Hash functions will shorten the size of articles, and they will be decoded when quired to allow faster searches within the database. Code will be easily readable and organized, and database structure will be straight-forward and easy-to-use.

9. Basic user password system, any time a user enters a password to log in, it will be cross-referenced with stored user information. User's won't be able to see history of other profiles, further analysis needed to determine how much access users have to each other's info.

10. Once a day backup which will be stored in a different location of the db incase of catastrophic failure. Past 30 days of back-ups will be saved, at the addition of a new back-up, the oldest back-up will be deleted. Amount of back-ups can be changed based on the size/growth of the site.

11. Team will need to learn Postgresql, and server hosting. All team members will individually research and practice using Postgresql, and one team member will focus on learning hosting a server to hold the desired information.

Search —For→ Tags
Search —For→ Articles
Tags Contain Articles
Tags ←Stores— (Article Database)
Email Recommends Articles
Email Sends Users
Users Access Articles
Users Writes Comments
Articles contains Comments
Article Database Stores Articles
Forum Database Stores Comments
Comments has Likes / Comments
Permission Goup 1, Permission Goup 2, Permission Goup 3 → Users

12.

Objective:

Increase user interaction and user involvement across the platform
Design and Implement a Database System with built-in Analytics, forum, and email system.
Provide Civic-Story with the tools needed to analyze growth, enable increased user interactiveness, and user-to-user interactiveness

Approach:

Modify industry-standard Database for news sites to meet the objectives, and doing this by:
1. Research and Brainstorm options.
2. Create a possible solution.
3. Collect data and analyze growth.
4. Test all values to confirm all is working.

Milestones:

Database Model,   03/07/2020
Design,   03/22/2020
Implementation,   04/05/2020
UI,   04/26/2020
Final Design,   05/03/2020

13.

14. The repository URL is https://github.com/boydj9/CRDB-Project.git