Project status report 3

CS673 Team-5 Project

Meeting Minutes 1

Date and Time:10/11/2024, 2:30 pm-3:30 pm
Place: Zoom meeting
Participants: Yi Zeng, Chaojin Guo, Aradhana Mehra, Damodhar Pai, Tianchi Wu
Minutes taker: Yi Zeng
Timekeeper: Yi Zeng
Purpose: Discuss the replacement of technology stack, issues that each member does not understand about a certain technology, learning plans for the technology, and how to collaborate on development.

Agenda:

1. Database change
2. Technical problems
3. Study plan
4. Way to collaborate

Discussions:

1. Due to the need for Full-Text Search functionality, we realized that SQLite might not be the best fit, so we decided to switch to either MySQL or PostgreSQL. After some discussion, we chose PostgreSQL because it not only supports Full-Text Search but can also handle GIS data, which we might need to store in the future.
2. Our team members are eager to take on new challenges and explore new technologies, like Django, React, and UI design.
3. However, since these are new to us, it will take some time to learn and develop skills in these areas. We'll need to focus on what to study and how to approach learning them, as well as find ways to improve collaboration.

Key Decisions:

1. We decided to use PostgreSQL for Full-Text Search and potential GIS data storage.
2. Each team member will focus on learning the technologies they'll be using. Specifically:
    a. Yi Zeng, Damodhar Pai, and Aradhana Mehra will study Django and PostgreSQL.
    b. Tianchi Wu and Chanjin Guo will focus on React, Figma, and Google API.
    c. The study period will continue until our next meeting. The goal is to gain a basic understanding, but ongoing learning is encouraged.
3. To enhance collaboration, we'll use a single GitHub repository. Tianchi Wu will set up the repo and initiate the projects using the chosen frameworks (React, Django). We'll also start a development server.
4. We'll organize our tasks in Jira and update our project plan regularly. Tianchi Wu will take some responsibility for the front-end progress and quality, while Yi Zeng will focus more on the back-end progress.

Meeting Minutes 2

Date and Time:10/16/2024, 2:30 pm-3:30 pm
Place: Zoom meeting
Participants: Yi Zeng, Chaojin Guo, Aradhana Mehra, Damodhar Pai, Tianchi Wu
Minutes taker: Yi Zeng
Timekeeper: Yi Zeng
Purpose: Discuss our next Sprint and Milestone, database design, UI and front-end components.

Agenda:

1. About Sprint and Milestone
2. Database design
3. UI and Frontend

Discussions:

1. **Milestones and Sprints:** We outlined our project milestones and planned our sprints. We also briefly checked in on each member's progress with learning the new technologies and frameworks. While we're making headway, we recognize that more study time is needed to get fully comfortable with them.

2. We had a preliminary discussion on designing the database, where we shared initial ideas about requirements and table structures.
3. Additionally, we talked about improving the user interface and how to break it down into frontend components for development.

Key Decisions:

1. **Next Milestone:** Complete the main APIs (register, login, listPosts, addPost, getPostDetail) and the following pages: Registration page, Login page, Home page, New Post page. Connect the frontend and backend to ensure the website functions properly.
   Sprint 1: Finish database design, decide on the UI style, and apply it to frontend components.
   Sprint 2: Develop the main APIs, create the main pages, and implement request functions.
   Sprint 3: Integrate everything and conduct testing.
2. We have set up a development server and launched a PostgreSQL database on it. Aradhana Mehra and Damodhar Pai will directly create tables in the database, and Yi Zeng will review and add any missing tables. The more comprehensive the table structure design is, the better, but we probably need to make changes during development in future. Based on our first milestone, design the tables we need to use as best as possible.
3. Tianchi Wu and Chanjin Guo selected Material UI for the project and are working on applying it to components along with React. They aim to create some components and build a basic page before Sprint 2.

Action Items:

1. Project status report 3
2. Dev server
3. Dev database
4. Backend project on repository

Individual Contribution

- Damodhar Pai:

    1. Implemented the **Posts** and **Comments** tables in PostgreSQL, ensuring they support key project functionalities.

2. Incorporated geolocation data in the Posts table using the geography type, enabling location-based features.
3. Designed the **database schema** to efficiently handle user-generated content and interactions.
4. Assisted in setting up PostgreSQL, enabling advanced features like Full-Text Search and GIS data handling.
5. Coordinated with team members to ensure database design aligns with frontend requirements and overall project goals.

- Tianchi Wu:
    1. Set up the backend Django framework and related dependencies.
    2. Adjust some detail in both homepage and detail page.
    3. Set up the initial Docker environment for the project with `docker-compose.yml` and `Dockerfile` files.
    4. Created the custom user authentication module in Django.

- Aradhana Mehra:
    1. Connected to the PostgreSQL database using pgAdmin.
    2. Created the database and designed the **Users** table, ensuring it aligns with the project's requirements for user management.
    3. Defined key fields in the Users table, such as **display_name**, **email**, and **password_hash**, ensuring proper data types and constraints (e.g., checking for BU email addresses).
    4. Ensured database security by implementing unique constraints and password hashing mechanisms.
    5. Assisted with initial setup and database structure design to support scalability and future integrations.
    6. Coordinated with team members to verify database alignment with front-end development needs in Django.

- Chaojin Guo:
    1. Finished designing basic websites through Material UI
    2. Communicated with Tianchi to modify the homepage.
    3. Studied React and implemented some effects on the pages.
    4. Adjusted front-end framework and generated some plugins or development kits into our framework.

- Yi Zeng:
    1. Held meetings, and recording.
    2. Organized progress, plans (milestone, sprints, tasks), requirements and user stories on Jira.

3. Started our development server and PostgreSQL database with PostGIS extension.
4. Checked the database table structure and added relationship tables such as “users_follow_rel”, “hashtags” and “post_hashtag_rel”, also added some fields on tables other members created.
5. Studying both Django and React.

GitHub Repository

https://github.com/tianchiw/terrier-connect