Spring Project Kickoff

25 January 2024 / 2:00 PM / SICTR 0107
Griffith Buck Rose Project / Group 41

Attendees

Amy Hartjen, Erik Sandberg, Patrick Origer, Logan Schmit, Alex Reynolds, Lindsey Smith, Mai Zheng

Absent: Devin Amdhal (Family Emergency), Greg Carter (Class Conflict)

Agenda

Introductions

Design Review

- Accomplishments
    - Web page layout & mockups
    - Database layout
    - Backend architecture
- What did we learn
    - Major necessary steps to creating an informative website
    - Improvements in team planning
    - Thoroughly cite sources
- Next steps
    - Focus our attention on completing website, excluding Degree Day and Community pages
    - Begin implementing Degree Day and Community pages
    - Add more detail to design document

Changes/Improvements

- Adding a community page will require:
    - Moderation, text and image support
    - Changes to our database schema
    - Additional endpoints on backend
- Creating a more well rounded and detailed reference section

Class Requirements

- Full participation on class assignments
- Streamline attendance at meetings
- Use class time to supplement group meetings
- Communication

Schedule

- Complete website (minimum viable product)
  - February 18th
- Admin page
  - March 24th
- Degree Day
  - March 24th
- Community page
  - April 7th
- Mobile version of website
  - April 7th

Process

- Merge requests & issues
- Streamline Gitlab
- Divide workload evenly between members

Q & A

Notes

- Community page
  - Mai Zheng asked about the purpose of the Community page
  - Possible search feature for the community page
  - Tags on photos and text based searching
- Lindsey Smith asked about fluid key functionality deadline
  - Someone could be in charge of the fluid key on their own (Devin Amdahl)
  - Implementation plan:
    - Spring Data JPA's query by example, sorting, and limiting functionalities
    - Frontend shall construct a mock (example) JSON object of the flower using the attributes selected by the user. Non-selected attributes will be set to null. Frontend shall send this object to backend using a to-be-decided HTTP request/endpoint and including the object in the request's body. Backend shall construct an Example<Flower/Buck> instance from the provided JSON object. Then, backend shall query the database with this Example

instance and to-be-decided ExampleMatchers for each attribute, returning the results of the query to frontend.
- Mai Zheng asked about photo storage
  - We are storing images on the server
  - Need to look into where community page images will be stored
- Make note of how many bytes can be transferred, how many users can be supported, etc.
- Consider free vs paid options of hosting the website
- Asked Mai Zheng about the "floating" entity in our database design
  - In his opinion, it is okay to utilize a single database schema that includes the floating entity with the other related entities

Summary

The purpose of this meeting was to review the design document, discuss the plan and schedule of the upcoming semester, and discuss the feedback from the faculty review panel. Our project title is Griffith Buck Rose Project and we are group 41. For the meeting, everyone was present besides Devin and Greg. Devin had a family emergency and notified the professors of his absence. Greg had a scheduling conflict and was in class. Greg also notified the professors of his absence. We discussed the plan for this upcoming semester and set milestones for major functionality. Then we discussed adding complexity to our project and the floating entity in our database as those were emphasized in our faculty feedback. Lastly, we reviewed our design document and took any questions or feedback on it. Our next steps for the project are to focus on the completion of the main website by the stated deadline and meet back together at the below times.

Decisions Made:

- One schema for the database
- Will be creating a Community page to add complexity to our project, as requested by the faculty review panel

Actions To Be Taken:

- Research the functionality the Community page will provide
  - Image uploads, text posts, search
- Research image detection and text moderation services/libraries
- Assign functionality to individuals
  - Complete website excluding Community, Degree Day, and Admin pages (minimum viable product)
    - Initialize our database with information provided by Lindsay
    - Refactor backend to utilize Spring Data JPA and JPA Repository
    - Refactor database schema to match any changes required by Spring Data JPA and JPA Repository

- - - Implement fluid key functionality between backend and frontend
      - Implement Info pages on frontend
      - Implement a footer that is standard across all pages on frontend
      - Implement individual rose pages based on Figma prototypes on frontend
      - Implement dynamic population of flower cards on homepage on frontend
      - Implement dynamic population of fact of the day and rose of the day on frontend
      - Implement pulling images from the server on frontend
    - Implement Admin page
      - Alter database schema
      - Implement user authentication
      - Implement admin functionality to modify the website (adding information to flowers, adding new flower entries, adding vendors, enabling/disabling vendors, etc.)
    - Implement Community page
      - Implement textual posts and image uploads
      - Implement textual moderation, image detection, and input validation functionality to prevent the need for manual moderation from admins and potential vulnerabilities (SQL injection, XSS, etc.)
      - Implement search functionality on image tags and textual posts
    - Implement Degree Day page
      - Implement Degree Day calculation on backend
      - Create the Degree Day page and alter the website header to include the page
    - Implement mobile version of website
      - Potentially turning website into a PWA (progressive web app or essentially a mobile app)
      - Mobile-first styling with Bootstrap
- Look into the amount of users that can be supported
- Publish website on GitLab Pages
- Update and revise our design document
- Consider potential benefits and drawbacks of migrating infrastructure to AWS (EC2, RDS, and S3 Bucket)

Next Meeting Agenda:

- Client meeting on February 4th at 2pm in Parks Library 101H
- Advisor meeting on February 5th at 4pm in 349 Durham
- Team Meeting on January 28th at 1pm in Parks Library 101H