Iteration 0 report

1. Profile

Team Name: Flyer. Scrum master: Wenrui Zhang; Product owner: Xiaopei Xu; Team members: Lang Feng, Bowen Li, Yinan Zhu, Jianyu Zuo

2. Customer meeting date/time/place

Meeting on Friday 4:30 pm at CBGSE (101 Gateway, Suite A, College Station).

3. Summary

The goal of this project is to design a website which serves as a basic framework for crowdsourcing of biodata curation. Specifically, this website should have 3 main features (more detailed requirements and feedbacks will be provided as the project evolves). First, an interested individual should be able to register on the website as a data curator. They can either set up a new account or login in with their social account like Facebook or Google+. Secondly, tutorial for this websites should be rendered to the curators in a user-friendly fashion (It should be a dynamic instruction. It's better to instruct user in a game way) so that even people without much biological background will be able to easily learn the necessary curation skills. Third and the most important, the website should record the curation results of these registered data curators which will be accessed both automatically (by comparing the results among curators using, for example, weighted majority vote) and manually (for the cases that are hard to be solved automatically). There should be a way to evaluate curators based on their past performance. Thus, the results from curators who have good curation history should be trusted more in deriving the correct results.

In order to emphasis the pain point of this project, in the follow, I'll show the main stream of this websites. After logging in, curators are given several datasets which are assigned by administrator with a few questions set by administrator. These datasets are extracted from Array Express or GEO automatically with the term for searching provided by administrator. Curator can answer the questions by simply choosing yes or no. The website judges the correction of these questions by either taking the most frequent choice of curators' answers or using the answers given by administrator. After getting correct answers, the website can automatically define the performance of each curators. For administrator, he can search term for related datasets. This terms are defined by the answers of questions. Also administrator can choose to only display the answers of curators who have high performance. Other features like improving database will be considered if time is possible.

4. User Story

Feature: Registration

As a interested individual

So that I can curate data

I want to register on the website

Feature: Filling in the questionnaire

As a curator

So that I can evaluate my performance by the classified data sets

I want to fill in the question list to classify data set

Feature: Viewing my submission

As a curator

So that I can review my past answers

I want to view my submission

Feature: Recording the curation results

As a administrator

So that I can choose curators who can be trusted more

I want to evaluate curators based on their past performance

Feature: Extracting the data set from public websites

As a administrator

So that I can automatically assign the data set to users

I want to provide the term for searching in ArrayExpress or GEO

Feature: Training

As a person without much biological background

So that I can easily learn the necessary curation skills

I want to receive training materials rendered in a user-friendly fashion

5. Lo-Fi UI
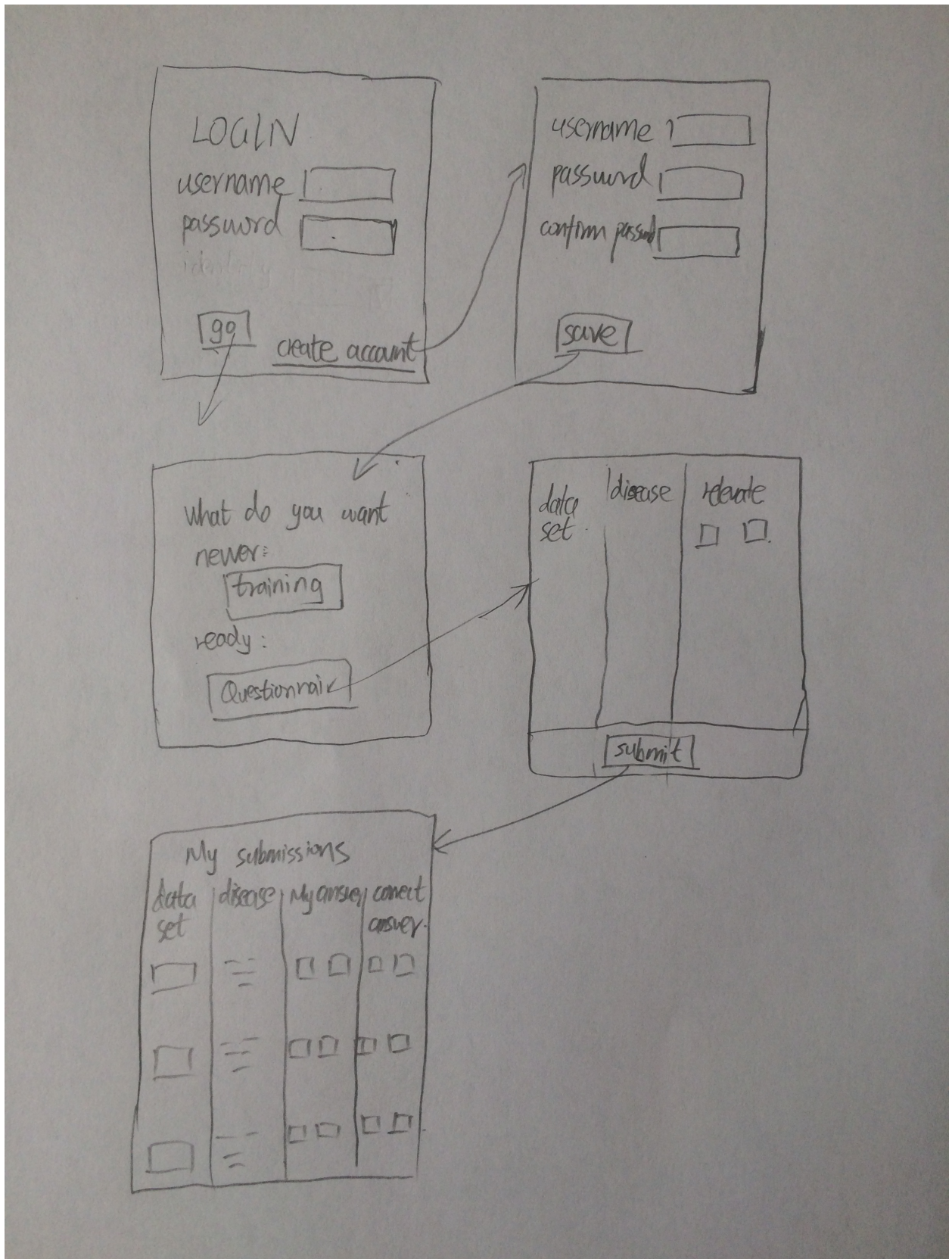
6. Legacy

Project Name: Genetic Dataset Curation Website

Platform: Ruby on Rails

Tools: Github Heroku RSpec&FactoryGirl

Main Goal: Provide an online website platform for users to submit their answers to the questionnaires about the relationships between disease name and gene NO. And support administration for administrators on the results.

Function Description:

The root-URI page is the log-in page. It offers options for creating new user, which will lead to a new user setting page. The top layer of the website offers some useful panels for quick access. They are Home, Help and Log in tags. The bottom layer of the website offers some development information, which are links to the information about the website developers.

After correctly login or submitting new user request, the website will be directed to user profile page. And there are two situations. For users, they will only see the results of the questions they've already submitted their answers, namely the "submissions". A button "Start" is offered to the users to direct to the disease page, where they can make their choices on relevance and reason and submit the answers. For administrators, they can not only do what the users could do, but look at the users' statistics, answers distribution as well. Besides, under every circumstance the DataSet value appears, there will be a hyperlink to an external website contains the information about this DataSet.

Learning Codes:

Scheme of the tables stored in database: 3 tables

Users: name email created_at updated_at password_digest remember_digest admin accuracy

Disease: disease accession created_at updated_at related unrelated closed

Submissions: disease_id user_id is_related created_at updated_at reason

Top View of the Website Design: 3 models(User, Disease, Submission).

Details: Use sessions_controller to control the root-URI (the login page) and check and store the user login information in session[], and finally direct to the User model.

The User model has two controllers-the admins_controller and the users_controller. These controllers take care of the Routes concerned with the users. There are ways in this model to connect the other two models.

The Disease model has only one diseases_controller. This controller's work is mainly getting data from the database and support a user interface for users to submit answers.

The Submission model doesn't have code in the submissions_controller. This model belongs to the disease and user. Inside this model, the work is mainly interacting the submission results of a specific disease and user with the database records.

Previous stories improvement:

Make the website much easier to maintain.

7. Pivotal Tracker

https://www.pivotaltracker.com/n/projects/1887551

8. GitHub

https://github.com/xvxiaopei/CSCE606-project

9. Video

https://youtu.be/YVqrbsdxi5M