Assignment 2 - SENG365 2017

Change log

Version 4, 3 October 2017

- Submission instructions have been added (using zip to dropbox on Learn)
- Story 1 - description field is no longer required
- Story 1 - any mechanism that retrieves a subset, rather than the full set, of projects is acceptable, for example, lazy loading or pagination of results
- Story 2 - GET /projects/:id will automatically return pledges sorted in the order required

Version 3, 25 September 2017

- Updated to reflect the new v2.1 API, published 21 September,
- Includes more detail on submission and assessment
- Some stories have been renumbered, and there have been some story changes.

Introduction

Using the REST API and service originally introduced in Assignment 1, complete the crowdfunding site by building a rich web application to create, promote and fund creative projects.

We strongly recommend that you use the technologies we've covered in this course (vue.js and ES2015).

Your app must run in a prescribed way from a lab workstation so that it can be marked. We will assess your app against our reference Assignment 2 API implementation (https://eng-git.canterbury.ac.nz/seng365-2017/api-v2-implementation.git), so it's important that you understand and be comfortable with the API v2.1 changes we've introduced after Assignment 1.

Marks and due date

This assignment contributes up to 20% of your final grade.

20 July	Introduce assignment, and discuss business side of APIs in context of assignment
27 July	API design refined during classroom discussion
30 July	API v1 specification
21 September	API v2.1 specification and implementation released
11:55pm 18 October	**Assignment 2 due**
9:00am 19 October	Assessment, Erskine labs
11:55pm 27 October	Drop dead date, with 15% penalty

There is an assignment forum on Learn. You may ask questions about the assignment there, and any updates or clarifications will be posted to that forum.

Assessment

In this assignment your commitment to the user experience should be front-and-centre. This doesn't mean flashy UI features or "look-at-me" interfaces, though. Instead we're interested in ways your app might help to lower the barrier between project sponsors and funders, to see an increase in the number of worthy projects that are successfully funded.

The requirements are provided in the form of User Stories in the "Assignment 2 backlog" below. Implement as many as you can (each story counts in the assessment).

As stated in the introduction, your app must run in a prescribed way from a lab workstation (see below ~~upcoming Learn posts~~) to be marked, and we will assess using the installed version of Firefox.

We shall be assessing:

1. Correctness and ease of use for each implemented story when run against an instance of the reference Assignment 2 API implementation (a buggy or broken story won't improve your grade). This is the main component of assessment.
2. Robustness and stability. An app that crashes or fails will be hard to assess. We'll also expect that your application will perform simple field validations and access checks.
3. Visual appeal and general creativity (going the extra mile.)

Submission

Submit your assignment to the dropbox on Learn for Assignment 2 as a zip file named `<usercode>.zip` (e.g., `abc123.zip`).

Your app must be able to be run using the following procedure (essentially these are the steps you would follow to run the app in Lab 8):

1. Unzip the submission to a directory on a lab workstation
2. `cd` directory
3. `npm install`
4. `npm run dev`
5. Open browser to port 8080

The api-v2-implementation API that your app is to use will be found at assessment time on `csse-s365.canterbury.ac.nz:<port>/api/v2`, where `<port>` is your assigned port from assignment 1 (as a reminder, it's the value of `SENG365_PORT` under settings/variables for your assignment 1 project on eng-git.)

If your submission cannot be run in this way when we assess it, your grade for the assignment will be affected. If however you know that you cannot meet these requirements for good reason, you may request approval for any differences no less than one week before the normal submission date.

If you wish to submit on the dropdead date, you must notify us by email no later than midnight on the second day after the due date.

~~Just as for assignment 1, we'll assess the last commit made by the due date (or dropdead date) to your personal git repository for SENG365 on eng-git.~~

Anonymity

Please make sure that there is no information in your submission (either in the code or when the app is running) that identifies you as the author. This will help us maintain anonymity during assessment.

Assignment 2 backlog

Authentication and authorization

All features which do not require authentication can be done by any Person, regardless of being authenticated or not. But if a feature requires authentication, the Person must login to be authenticated (by POST /api/v2/users/login), and remain authenticated while they use the feature.

If a Person logs out (POST /api/v2/users/logout), they become unauthenticated and lose the ability to access authenticated features until they log back in once more.

A Person must be registered (POST /api/v2/users) before they login.

Only one Person at a time may be logged in on each instance of the front-end app.

User stories

1. As a Person, I'd like to view all of the current Projects.

   Acceptance criteria:

   - The Title, Subtitle, ~~Description (if present)~~ and Image (if any) for each project must be shown.
   - If there are more Projects than easily can be shown in a single list or view, then there must be a mechanism to view them in batches.
   - Only projects that are currently open to Pledges are shown. Any Project that is not explicitly marked as Closed is considered to be Open.
   - The Projects shown can be restricted to only those whose Title or Subtitle ~~or Description~~ fields contain given words or phrases.

2. As a Person, I'd like to see the details for a Project, to help me decide if this is a project to back.

   Acceptance criteria:

   - General Project information shown must include: Title, Subtitle, Creators, Creation date, Description, Rewards and the Funding target.
   - There may also be an image or picture for the Project. If there is, it must be shown. You can assume that this will be in either PNG or JPG format, and of the correct resolution for display.
   - The progress towards the funding goal must be shown. This must include the number of current Backers and the total amount currently Pledged.

- The Backer name and Pledge amount (and nothing else) for the five most recent Pledges must be shown.
- Pledges which are marked as "anonymous" must be included in the total for a single "Anonymous" backer, and must not be shown individually.

3. As a Person I'd like to self-register on the app so that I may login and access features that require authentication.

   Acceptance criteria:

   - Any unauthenticated Person can register by providing a username, email address and password, and optionally, a location.
   - The password must not be shown in clear text.
   - Any non-empty string is acceptable as a password (no strength checking to be done.)
   - The email address must be unique and of a valid form.
   - The Person will be authenticated (logged on) immediately on submitting a correct registration.

4. As a registered Person, I'd like to be able to login and logout from the app so that I can complete tasks that require authentication and authorization.

   Acceptance criteria:

   - A registered Person must be able to login to the app using their username or email and password.
   - A logged-in Person (and only a logged-in Person) may logoff. They are no longer authenticated when logged-off.
   - Only one Person may be logged-in at a time.

5. As an authenticated Person interested in Backing a Project, I want to be able to Pledge an amount to the Project.

   Acceptance criteria:

   - Pledges can only be made to an "Open" Project.
   - The Project total must increase by the Pledge amount when the Pledge is made.
   - If a Pledge is not anonymous, the user name must be shown in the list of Backers for the Project along with the Pledge amount.
   - If any Pledge to a Project is anonymous, there must be an "Anonymous" backer shown in the list of Backers, with an associated Pledge amount equal to the total of all anonymous Pledges to the Project.
   - The total number of backers for the project must equal the number of unique non-anonymous backers, plus one if any Pledge is anonymous.

6. As an authenticated Person interested in getting a project funded, I'd like to be able to create a new Project and maintain an existing Project.

   Acceptance criteria:

- New Projects must contain at least the information required by the earlier Project view stories. An image is not required but is optional.
- A new Project is Open to new Pledges and only Open Projects can receive Pledges.
- An Open Project can be Closed.
- A Closed Project cannot be re-Opened.

- Any image for the Project can be replaced by another image.

7. As a Backer or Creator, I'd like to filter my view of all Projects so that my attention is drawn towards the ones I'm most interested in.

   Acceptance criteria:

   - A Backer will have the option to view only the Projects for which they are a Backer.
   - A Creator will have the option to view only those Projects for which they are a Creator.