

User Story Backlog for students

SENG365 2019: Web Computing Architectures

Version 1.0; 2 April 2019

Overview

This document summarises the user stories that should be implemented in Assignment 2. Assignment 1 implements a web server to provide the 'back-end' for these stories. Assignment 2 implements a web client to provide the 'front-end' for these stories.

The user stories are organised into two categories: assessable stories, and non-assessed 'extra' stories. The assessable stories are those stories that the examiners (i.e., the teaching team) may assess as part of Assignment 2. It is likely that only some of these stories will be assessed, but we won't declare which before the assessment takes place. The non-assessed, 'extra' stories are stories that students can choose to implement for personal interest and professional development.

For each category of story, the first story in that category is the most important story. You are strongly advised to successfully **implement the first story for each category** of stories **before** you move on to implement other stories in the categories.

We plan to release a copy of the source code for the reference server so that you have a standard server against which to create your client application. Regardless of when the source code is released, you can still test your client against the executable version of the reference server available at

<http://csse-s365.canterbury.ac.nz:4001/api/v1/>.

Finally, 24 assessable stories may appear to be a lot of work. Remember that much of the computational work is already done for you by the reference server. Assignment 2 is focused on requesting and retrieving information from the server, and then presenting that information effectively to the user.

Assessable stories for the assignment

Definitions

The following terms are used in the stories

- *Potential visitor*: any person using the app to view venues, whether registered or not as a user.
- *Registered user*: a person that has registered an account.
- *Administrator*: a user that 'owns' a venue, and has added/is going to add that venue to the app.
- *Mean*: the statistical mean average.
- *Mode* or *modal value*: the statistical modal average

Searching venues

- M1. As a potential visitor, I'd like to see a list of **venues** (e.g., restaurants, hotels, and attractions) that I can visit in a given city.

Acceptance criteria:

- The user should be able to select a city they're interested in, and see only venues from that city. If a city is not selected, all venues for all cities are shown.
- The name and category of each venue must be clearly visible to give the user an idea of what that venue is.

- A photo of the venue must be clearly visible. If there is no photo available for the venue a default image should shown.
- The mean star rating and mode cost rating of each venue must also be clearly shown, so as to allow the user to quickly compare quality/affordability of venues.

M2. As a potential visitor, I'd like to be able to see only those venues whose name contains some characters, words, or a phrase, so that I can find the venues that are of most interest to me.

Acceptance criteria:

- The user can type a word or phrase into an appropriate search box to filter results.
- Only venues whose **name** contains the provided word or phrase are shown.

M3. As a potential visitor, I'd like to be able to filter the venues shown to those of a particular category (e.g. accommodation or restaurant), so that I can easily find a venue of the type I need.

Acceptance criteria:

- The user can select any category to filter by.
- Only venues of the selected category are shown.

M4. As a potential visitor, I'd like to be able to sort the venues based on rating, to allow me to better compare venues.

Acceptance criteria:

- The venues must by **default** be ordered from highest to lowest average (mean) star rating.
- The user can choose to instead sort them from lowest to highest average (mode) cost rating.
- The user can choose to instead sort them from lowest to highest average (mean) star rating.
- The user can choose to instead sort them from highest to lowest average (mode) cost rating.

M5. [Challenging] As a potential visitor, I'd like to be able to sort the venues based on location, to allow me to better compare venues.

Acceptance criteria:

- The user's location is determined using their **browser location**. If the user does not give permission for the app to use their browser location, then distance is not shown.
- The user can choose to sort venues from closest to furthest away.
- The user can choose to sort venues from furthest away to closest.

M6. As a potential visitor, I'd like to be able to view the venues shown in batches.

Acceptance criteria:

- If there are more venues than **10** venues in the list, then the user should only see the first 10 to begin with.
- The user can choose to view the next batch of 10 (if there are additional venues), i.e., venues 11-20. In this way, the user should be able to look through all the venues in the list 10 at a time.
- The user can choose to view the previous batch of 10, where the user has progressed between the first 10 venues e.g., if the user is items 21-30, the user can 'page back' to items 11 - 20.
- The user should always be able to see the index of the current batch e.g., 21-30.
- The user should be able to see when there are no more venues i.e. there should be an indication that the last batch has been reached.
- The last batch may contain less than 10 venues: e.g. batches 1-10, 11-20, 21-30, 31-37 if there are 37 matching venues in total.

M7. As a potential visitor, I'd like to be able to filter the venues shown to those that have at least a certain star rating.

Acceptance criteria:

- The star rating for a venue is calculated as the average (**mean**) of all star ratings given in its visitor reviews. If a venue has no reviews yet, it is considered to have a star rating of 3.
- The user can choose a minimum star rating (an **integer** between 1 and 5 inclusive).
- Only venues with star ratings greater than or equal to the minimum are shown.

M8. As a potential visitor, I'd like to be able to filter the venues shown to those that have at most a certain cost rating.

Acceptance criteria:

- The cost rating for a venue is calculated as the most common (**modal average**) of cost ratings given in its visitor reviews. If a venue has no reviews yet, it is considered to have a cost rating of 0.
- The user can choose a maximum cost rating of "Free" (0), "\$" (1), "\$\$" (2), "\$\$\$" (3), or "\$\$\$\$" (4).
- Only venues with a cost rating less than or equal to that maximum are shown.

M9. As a potential visitor, I'd like to be able to apply **multiple** filters concurrently in my search of venues e.g., if the user filters by a min star rating of 4 AND category "accommodation" on a specific phrase, then only accommodation with a name containing the phrase AND with a higher mean star rating than 4 should be shown. (Logically, this means returning the intersection of the separate search results, rather than the union of the separate search results.)

Viewing a venue

M10. As a potential visitor, I'd like to be able to see further details about a venue to help me decide whether I want to visit it or not.

Acceptance criteria:

- There should be an easy way to reach these details from the list of venues described in story M1.
- Basic information about the venue should be visible, including: name, category, the username of its administrator, city, address, and the date it was added.
- A "description" section should show just the venue's short description to begin with.
- The "description" section can be expanded to show the short description with the long description appended to it.
- A photo, or photos, of the venue should be shown.
- The venue's average (mean) star rating, and average (mode) cost rating (e.g. \$\$) must be displayed.

M11. As a potential visitor, I'd like to be able to see detailed reviews about the venue I'm considering visiting to help me decide whether I want to visit it or not.

Acceptance criteria:

- On the further details page for a venue, a user should be able to see all of the individual reviews for that venue.
- The venue's reviews must be listed in reverse chronological order, with most recently posted first.
- For each review, the body of the review, the star rating, the cost rating, the reviewer's name and the time it was posted must be shown.
- There is no requirement to the *upper* limit of the number of reviews to show per page e.g., the system does not have to show batches of 10 reviews. At least one review must be shown (if there is a review). If not all reviews are shown, then there should be a facility to progress to the next review.

Register/login

M12. As a potential visitor or as the administrator of a venue, I'd like to self-register as a **user** for the application so that I can access features that require me to be authenticated.

Acceptance criteria:

- Any unregistered person can self-register by providing a given name, family name, username, email address, and a password.
- The username must not already be in use, otherwise any non-empty string of alphanumeric characters up to 64 characters is acceptable.
- The email address must be of a valid form according to the [HTML5 spec's definition](#).
- The email address must not already be used.
- Any non-empty string is acceptable as a password.
- When the user is entering their password, the password must not be shown in plain text. Additionally, the user must input their password again in a "confirm password" field to ensure that they have entered it correctly. The user will not be able to register until the two passwords match.
- The user will be immediately authenticated (logged in) following their successful registration.

M13. As a registered user, I'd like to be able to log in and log out from the application so that I can complete tasks that require authentication.

Acceptance criteria:

- A user must be able to login to the app using their password and either their username or email address.
- A logged-in user, and only a logged-in user, may log out, which causes them to no longer be authenticated.
- A logged-in user cannot log in again (whilst already logged in).
- A logged-out user cannot log out.

Venue administration

M14. As the administrator of a venue, I'd like to be able to add my venue to the application so that potential visitors can view it.

Acceptance criteria:

- The user must first be authenticated and successfully logged in.
- The user must be able to provide the following information to add a venue: its name, category, short description, long description (which may include for example opening times/days), city, address and latitude/longitude.
- The user that adds the venue is the only administrator for that venue.

M15. As the administrator of a venue, I'd like to be able to modify my venue's details, to correct any errors or update its information where necessary.

Acceptance criteria:

- Any of the information provided when the venue was created may be modified.
- The venue's reviews **cannot** be modified.
- Information derived from the review, such as stars and costs, **cannot** be modified.

M16. [Challenging] As the administrator of a venue, I'd like to be able to upload one or more photos showing the venue.

Acceptance criteria:

- An authenticated administrator can upload a picture in **JPEG** or **PNG** format, no bigger than **20MB**, to be displayed for their existing venue.

- Each venue may have zero, one or many photos.
- The administrator may delete a photo for their venue if they no longer want it to be displayed.
- If a venue has any photos, one (and only one) of them must be designated as the **primary** photo. By default, the first uploaded photo is the primary one.
- The administrator may change which photo is designated as the primary photo.

M17. As an administrator, I'd like to see the venues that I'm the administrator for.

Acceptance criteria:

- An administrator must have some method of viewing only the venues that they are the administrator for.
- Each venue must be shown with the same information that can be seen from the list of venues in story M1.

Reviews

M18. As a registered user, I'd like to be able to post a review of a venue I've visited to let other potential visitors know what my experience was like.

Acceptance criteria:

- The review must include a non-empty body of review text, a 1-5 star rating, and a 'Free'-'\$\$\$\$' cost rating.
- Only an authenticated user may post a review.
- A user cannot post a review for a venue they're the administrator of.
- A user cannot post multiple reviews for the same venue.

User profiles

M19. As a registered user, I'd like to be able to view **my own** profile information.

Acceptance criteria:

- An authenticated User can see the following information about themselves: username, given name, family name, email address.

M20. As a potential visitor or registered user, I'd like to be able to view a limited amount of information about a registered user (someone else).

Acceptance criteria:

- **Anyone** can see the following information: username, given name, family name.
- No one **except that registered user** can see the following information: email address, password.

M21. As a registered user, I'd like to be able to edit **my own** profile information.

Acceptance criteria:

- A registered user can edit the following information about themselves: given name, family name, password.
- Username and email address cannot be edited.
- To change their password, the user needs to provide their current password.
- No one should be able to modify another user's information.

M22. As a registered user, I'd like to be able to upload a profile photo.

Acceptance criteria:

- A registered user can upload a picture in **JPEG** or **PNG** format, no bigger than **20MB**, to be used as their profile photo.
- This profile photo is visible to **anyone** when a user's details are being viewed.

M23. As a registered user, I'd like to be able to replace my profile photo.

Acceptance criteria:

- A registered user may replace their existing profile photo with a new one that meets the same requirements.

M24. As a registered user, I'd like to be able to delete my profile photo.

Acceptance criteria:

- A registered user may delete their profile photo.

Non-assessed 'extra' user stories

Note: these stories are available for students who would like to further extend the application, for personal interest or professional development. These stories will not be assessed as part of Assignment 2. The implementation of an 'extra' story must not break or alter the implementation of assessed stories, except as noted.

E1. As a potential visitor, I'd like to see the venues near me displayed on a map, so that I can easily see where they are relative to me.

Acceptance criteria:

- The user's location is determined using their **browser location**. If the user does not give permission for the app to use their browser location, the application gracefully handles this by falling back to a default location.
- The user's location is indicated on the map.
- Venues are indicated on the map: their name, category, and primary photo are shown.
- All venues within a 5km radius of the user are shown.

E2. As a potential visitor viewing venues near me on the map, I want to be able to zoom and pan the map to see venues in a different location.

Acceptance criteria:

- The map begins centered on the user's location (or the default location if the user does not give permission for the app to use their browser location).
- The user can zoom the map in (showing a smaller area in greater detail) by scrolling their mouse wheel **up** or by pressing a "+" button.
- The user can zoom the map out (showing a larger area in less detail) by scrolling their mouse wheel **down** or by pressing a "-" button.
- The user can pan the map in a direction by clicking and holding on the map, then moving their cursor in the opposite direction (i.e. "dragging" the map's viewport).

E3. As a potential visitor, I'd like to know how far away from me each venue is, i.e. the distance from my location to the venue along the surface of the Earth.

Acceptance criteria:

- The user's location is determined using their **browser location**. If the user does not give permission for the app to use their browser location, then distance is not shown.
- Distance is shown for each venue in the list of venues (and on the map of nearby venues, if applicable).
- If the distance is greater than **1km**, then it is displayed in kilometres accurate to 1 decimal place (e.g. 13.1km). Otherwise, the distance is shown in metres rounded to the nearest 10 metres (e.g. 566->570m).

E4. *This story supersedes story M5.*

As a potential visitor, I'd like to be able to view only the first 10 venues in the list to begin with, but

be able to view more just by scrolling down on the list (infinite scrolling, or progressive loading).

Acceptance criteria:

- If there are more venues than **10** venues in the list, then the user should only see the first 10 to begin with.
- The user can then scroll down to load the next batch of 10 (if there are any venues left) at the bottom of the list. In this way, the user should be able to look through all the venues in the list, loading them 10 at a time.
- There should be an indication when the last venue is reached (and therefore no more can be loaded).

E5. As a registered user, when viewing any user's profile I'd like to be able to view additional information about the reviews they have given.

Acceptance criteria:

- **Reviews** made by the viewed user must be visible on their profile alongside the venues they were reviewing. When not logged in, these are not visible.
- The user's reviews must be listed in reverse chronological order, with most recently posted first.
- For each review, the body of the review, the star rating, the cost rating, and the time it was posted (or the duration of time since it was posted, e.g. "5 days ago") must be shown.
- A basic overview of the reviewed venue must be shown next to each review. This includes the venue's name, category, city and photo, and provides a link to the venue's details page.
- The average (**mean**) star rating that user has given in reviews should be visible.
- The average (**mode**) cost rating that user has given in reviews should be visible.

E6. As a person registering as a user, I'd like to be able to know how strong the password I'm choosing for my account is.

Acceptance criteria:

- The definition of "**strength**" follows the industry standard: mixing lowercase/uppercase letters and symbols, avoiding popular words or combinations such as "123456" or "qwerty".
- A visible password-strength meter tells the user how strong their chosen password would be. The strength meter shows **red** for "weak", **yellow** for "okay", and **green** for "strong".
- A password must meet these conditions to be considered "okay":
 - i. At least 8 characters in length
 - ii. Contains 3 of the following: uppercase letters, lowercase letters, numbers, symbols
- A password must meet these conditions to be considered "strong":
 - i. At least 12 characters in length
 - ii. Contains all of the following: uppercase letters, lowercase letters, numbers, symbols
- The password-strength meter changes immediately as the user types within the password field.