COM1001 Second Iteration report - Team 22b

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Instructions

Starting the system

How to start the system:

1) First of all we need to make sure all of the dependencies are installed, to do this run bundler
2) Bundler installs all the ruby gems that are required
   a) bundle install
3) Once this has completed, you should have the required gems to start the server To start the server, enter the following command:
   a) ruby startServer.rb
4) This should start the server up on port 4567. If you are hosting this on codio.io you can access it by using your unique url where word1 and word2 are your unique words: https://word1-word2-4567.codio.io/
5) In order to login to the website, you can either make your own account (As a standard user) or you could try logging into one of the accounts with the username and password, as seen in the table below:

Usernames and passwords

These are some example roles and usernames:

USERNAME	PASSWORD	ROLE
Admin	Password1!	Admin
User	Password1!	Regular Employee
Role1	Password1!	Guest with login requesting to be Employee
Role2	Password1!	A suspended user
Role3	Password1!	Employee wanting to be an admin

Role4 ← Could not think of an additional role therefore not added.

Extra

The passwords could not be what you asked for in the specification (ie Admin to have a password of Admin). This is because we have added password validation and it needs to meet minimum requirements, therefore passwords for all the example accounts are "Password1!".

<u>Production process</u>

Stories

These are the stories, any new insertion changes are highlighted <mark>green</mark>, anything removed are highlighted <mark>red</mark>. The explanation for changes will appear below the corresponding table.

Functionality goal	Security question - when register and reset
Priority	Could
Effort estimation	8
Detailed description	As a user, I can click 'forgotten password', this then allows me to enter my username along with the answer to my pre-chosen security question.
Acceptance criteria	User must enter Username User must answer security question correct, not case sensitive Allows users to reset password based on password requirements. Otherwise show error.

Story 1 - Not Completed - Not implemented due to time constraints and not key feature to the user.

Functionality goal	Make account
Priority	Must
Effort estimation	8
Detailed description	As a user, I click a button that says sign up/make an account. <mark>This causes the fields to expand</mark> <mark>This redirects you to a registration page</mark> and I enter, My full name, password, confirm password, set up a security question, <mark>Email address, and Username.</mark> I then press a button to submit this new account.
Acceptance criteria	User must enter full name, English letters only Passwords must match and be longer than 6 char, English letters,numbers and Symbols only User must answer a security question based on preset Otherwise show error of what missing

Story 2 - Completed
We found it to be more user friendly to have a separate registration page. We also thought it was useful to also have an email attached to the account.

Functionality goal	Logging in
Priority	Must
Effort estimation	5
Detailed description	As a user, I enter my username and password, and click log in.
Acceptance criteria	Fields cannot exceed length User must enter full name, English letters only Passwords must match and be longer than 6 char, English letters,numbers and Symbols only User must answer a security question based on preset Otherwise show error of what missing

Story 3 - Completed

Functionality goal	Password hashing
Priority	Should
Effort estimation	5
Detailed description	As a user, I type in my password but cannot see the characters as they are covered by filled in black circles for each character. I can click a button to view my password, but only while holding down the button. When the user logs in the password hash is compared with the hash on the server to allow successful login.
Acceptance criteria	Passwords are not stored directly on the server but as a hash

Story 4 - Completed
The feature to be able to view the password was not added due to time constraints and this was not key in the eyes of the client.

Functionality goal	5 Attempts to login before account locking/suspension; admin password reset needed
Priority	Could
Effort estimation	13
Detailed description	As a user, if I enter my login details wrong 5 times in a row, a message will display saying that I have been locked from my account and that I must contact the administrator to have my account unlocked.there is a button to request reactivation of account, which will notify an admin.
Acceptance criteria	Message displays and login is not possible, not just from that device. More than 5 failed login attempts across an hour. Admin can press a button on the admin page to reset the user password.

Story 5 - Completed
Added the word suspension to make it clearer. We also thought it is more convenient and user friendly for the user being able to click a button to be able to ask for reactivation, rather than having to send an email. The client also stressed that they would like this button feature in our first (iteration 1) meeting with them.

Functionality goal	Report dead / inappropriate links
Priority	Should
Effort estimation	5
Detailed description	As a user, I can click on the report button which causes a small dropdown to appear, here I can choose from a list of preset reporting reasons (such as racist or sexual content), and submit my report.
Acceptance criteria	After clicking 'submit' a success message appears

Story 6 - Completed

Functionality goal	Add to favourites list
Priority	Should
Effort estimation	3
Detailed description	As a user, I can hover over the link and select the "Add to favourites" button to add the link to a favourites list displayed on a separate page.
Acceptance criteria	Favourites list is accessible for that user not only on that device

Story 7 - Completed
The use of the separate page helps the user have a clear divide/area to see their favourite bookmarks.

Functionality goal	Seeing all as a list
Priority	Must
Effort estimation	13
Detailed description	As a user, I can load up the bookmark page and see all of the bookmarks in a list format, and can go to the next page if there are many links
Acceptance criteria	If there are 500 links, only regulated number gets displayed at one page

Story 8 - Completed

Functionality goal	Make bookmarks
Priority	Must
Effort estimation	13
Detailed description	As a user, I can click the 'create new link button' and this creates an empty line at the top of the list where I can fill in the link name, the link URL, and link tags.
Acceptance criteria	Too long fields are rejected Each field must be filled or rejected. If valid, saved for all

Story 9 - Completed

Functionality goal	Create tags for the bookmarks
Priority	Must
Effort estimation	13
Detailed description	As a user, I can make tags either when I make a new link or when editing a link by typing into the tags field. <mark>Tags are separated by a space</mark> <mark>Tags are separated by a # starting the tag and a # ending it too, for example #computer#.</mark>
Acceptance criteria	Changes are saved so that visible by everyone <mark>Too long tags are rejected</mark>

Story 10 - Completed
It is simpler for users to not have to enter a # between tags. This also reduces the chance of user error too.

Functionality goal	Search function
Priority	Must
Effort estimation	5
Detailed description	As a user, I can use the search function to specify the needed information such as the date added, the user who added, etc. (click box)
Acceptance criteria	After clicking <mark>checkboxes</mark> <mark>searching in a search bar</mark>, information is displayed

Story 11 - Completed
This means that the user will not be faced with a large list of items and can search without having to scroll through items likely to be unrelated to what they are looking for.

Functionality goal	Rating the link, validity
Priority	Should
Effort estimation	20
Detailed description	As a user, I can use an option to expand the link, so that I can view more about it (such as the comments and ratings), where I have an option to rate the link myself by clicking on my star rating drop down.
Acceptance criteria	Scrollable comment list appears Changes in star rating number rating visible to everyone

Story 12 - Completed
We found a number rating system easier to implement, and chose this for time reasons.

Functionality goal	Updating bookmarks
Priority	Must
Effort estimation	8
Detailed description	As a user, I can click a button that makes the text box with the name, web address, and tags editable and I can change their contents.
Acceptance criteria	Changes are visible to everyone, users can only change their created bookmarks.

Story 13 - Completed
The client said that the own department/user is responsible for the upkeep of their own links, therefore this feature is not needed (to have only the creation user be able to change).

Functionality goal	Can see all these filters/tags on each link
Priority	Must
Effort estimation	3
Detailed description	As a user, I can use a drop down menu to see the tags of a given bookmark
Acceptance criteria	Dropdown menu with a list of tags appears after clicking next to the link.

Story 14 - Completed
We thought being able to search for a tag rather than scrolling through a large list would be more user friendly.

Functionality goal	Comment (8)
Priority	Should
Effort estimation	5
Detailed description	As a user I can comment on the links using dropdown menu a separate page
Acceptance criteria	Dropdown menu appears with text space and send button There is limited character / word length After confirmation everybody can see the comment

Story 15 - Completed
We thought that if there would be many comments then this layout could be confusing, therefore to make it clearer and a separate page (accessed through the bookmark) has been added for comments.

Functionality goal	Audit log
Priority	Won't
Effort estimation	20
Detailed description	As an admin, I can see all activity that has occured to users accounts or links, e.g. users changing passwords or users editing links
Acceptance criteria	There is a timeline of events containing name, person and date

Story 16 - Completed

Functionality goal	Suspend / restore users (Cache of previously deleted users)
Priority	Must
Effort estimation	3
Detailed description	As an admin, I can restore previously deleted users accounts to enable them to be used again. Possibly requiring a password reset to enable the account
Acceptance criteria	There displays a list of old accounts, sortable by ascension User can login back, resetting the account in the process

Story 17 - Completed
We did not think it was necessary to sort the users by ascension, nor was this strongly mentioned by the client. Users do not have to reset their password or anything of the such, they just request unsuspension and the admin will decide what to do.

Functionality goal	Approving/changing guests to employee
Priority	Must
Effort estimation	2
Detailed description	As an admin, I can view guest accounts that requested employee status and confirm them.
Acceptance criteria	Display of name, and Email bookmarks added, date of request The user can see the change upon next login

Story 18 - Completed
Guests cannot add bookmarks, and we did not think a date or request was necessary.

Functionality goal	Validation for emails, links and passwords
Priority	Should
Effort estimation	8
Detailed description	As a user, I have to meet certain criteria when typing my email, such as there needs to be an @ symbol.
Acceptance criteria	When user tries to submit form without the '@' symbol, error is displayed Links have to include 'http' phrase, otherwise error Passwords need to have 8-16 character length, including at least one numeric character, special character, uppercase and lowercase letters.

Story 19 - Completed
We added more requirements for the password to make sure that users' passwords were more secure.

Functionality goal	Mobile too
Priority	Should
Effort estimation	20
Detailed description	As a mobile user, I have a view appropriate to my device width, so that I can use the website on my phone.
Acceptance criteria	The width is equal to viewport - no need for horizontal scrolling Navigation elements are arranged in a responsive manner Buttons are large enough to click

Story 20 - Completed
The bookmarks have to be horizontally scrollable otherwise it will appear cluttered.

Functionality goal	Standard accessibility features
Priority	Could
Effort estimation	2
Detailed description	As a user I have an option at the bottom of the page to make the text larger, I will also be able to navigate the entire page through the use of my keyboard?
Acceptance criteria	Text gets larger That can be reverted pressing the same button Buttons to add new bookmarks, etc, are clickable using tab + enter

Story 21 - Completed
We did not have time to implement the larger text feature.

Functionality goal	Efficient/intuitive design
Priority	Should
Effort estimation	2
Detailed description	As a user I can easily navigate the page, and it is clear and obvious where I need to press to access certain features or do certain things. There is no clutter.
Acceptance criteria	There is no need for questions after the presentation of the program

Story 22 - Completed

Functionality goal	admins upgrade users to admins
Priority	Should
Effort estimation	8
Detailed description	As an admin I can choose from a list of options (guest, non approved user, user, and admin) and upgrade someone's account to become an admin.
Acceptance criteria	Options display Person's status is changed - they see that after logging into the system They have all of admin's permissions

Story 23 - Completed

Functionality goal	admins see reported links and take action
Priority	Should
Effort estimation	3
Detailed description	As an admin I can see what links have been reported and I can take action by <mark>hiding and removing</mark> the link.
Acceptance criteria	Display of reports Active <mark>hiding</mark> <mark>removing</mark> button Other users no longer see the link <mark>New links to this address are hidden automatically</mark>

Story 24 - Completed
We thought that if a link was reported that it'd be better for the admin to just remove it rather than just hiding it.

Functionality goal	sort by ascension
Priority	Should
Effort estimation	13
Detailed description	As a user I can choose <mark>from a list of dropdowns,</mark> <mark>such as</mark> <mark>alphabetical date created, user created and my results will be</mark> <mark>displayed by this order.</mark> <mark>To sort the titles by ascensiuon or</mark> <mark>descension.</mark>
Acceptance criteria	<mark>Dropdown menu appears</mark> Can click and choose increasing of decreasing values

Story 25 - Completed
It did not seem necessary to sort by date created nor user, and therefore a dropdown is also not needed as there are not multiple things to sort by.

Functionality goal	filter by tag
Priority	Must
Effort estimation	20
Detailed description	As a user I can use a checkbox system on the side of the screen to be able to search for tags to refine my searches.
Acceptance criteria	Display checkboxes Change searches according to boxes If no entries in the narrowed down search result, display "No matching bookmarks" 0 entries

Story 26 - Completed
The search bar allows users to search for a tag, which will display all the bookmarks with this tag.

Functionality goal	reporting comments
Priority	Should
Effort estimation	5
Detailed description	As a user I can click a button that allows me to flag a comment as inappropriate and choose my reasoning from a drop down list.
Acceptance criteria	The drop down menu appears Admin can see checkbox menu answers in the raport

Story 27 - Completed

Functionality goal	Deleting comments
Priority	Should
Effort estimation	5
Detailed description	As an admin I can delete any inappropriate comments by clicking a button
Acceptance criteria	After clicking, the comment is no longer visible for that admin. After clicking comment is no longer visible for anyone

Story 28 - Completed

Story 29 - We have also added the feature for a user to be able to change their password.

Stories completed by iteration

Iteration 1

Make account
Logging in
Validation for emails, links and passwords
Search function
Can see all these filters on each link
Password hashing
Seeing all as a list
Make bookmarks
Updating bookmarks
Security question - when register and reset
Standard accessibility features
Create tags for the bookmarks
Approving/changing guests to employee
Add to favourites list
admins upgrade users to admins
Suspend / restore users (Cache of previously deleted users)

Iteration 2

Audit log
filter by tag
5 Attempts to login before account locking; admin password reset needed
sort by ascension
Report dead / inappropriate links
Rating the link
Comment
comments: reporting
comments: deleting
Request reactivation - if suspended, the user has a button they can press to ask to become unsuspended
new tab for that on admin
column saying tags, column saying ratings
Guest button - so that you could see bookmarks as guest without logging in, but don't remove the guest log in thing, that's good for requesting to become user
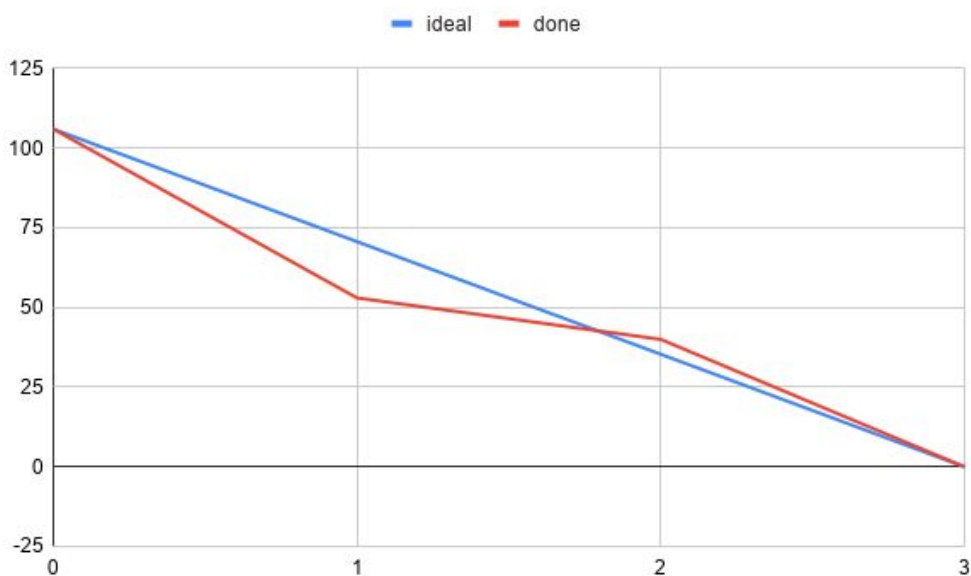
Burndown chart

Burndown chart for the first weeks 3-5
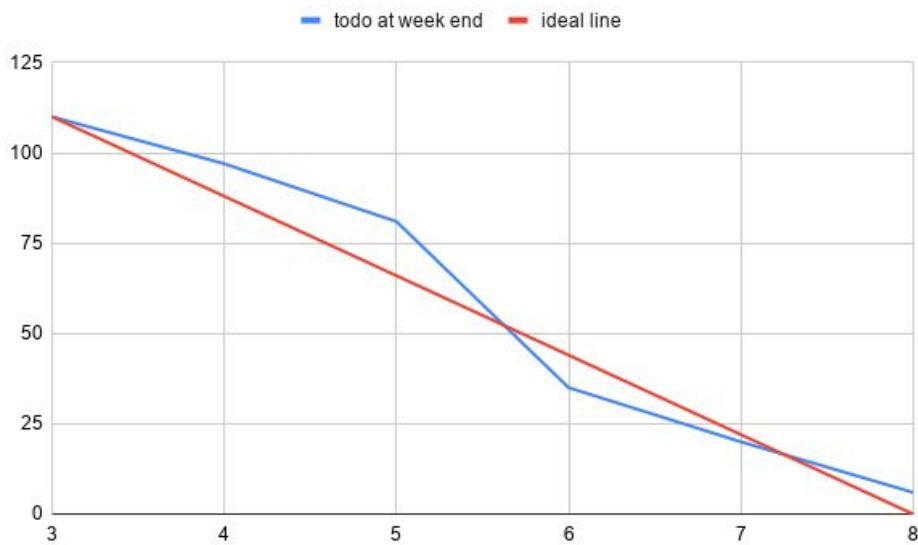
Almost on target, the increased effort in the middle(5-6) after staying behind in the beginning (3-5) did not keep up until the end (6-8).

Burndown chart for the last 3 weeks

On target, with only minor deviations from the ideal line.

Testing

The different parts of the system were tested in different ways.
- On the front end, the js and css elements were tested manually
- On the backend, the main file for interaction with the database (controller.rb) was tested with the 'Minitest' Ruby Gem, while the other files have been manually tested by the backend programmers to ensure database integrity during manipulation (avoiding unintended changes).
- For the user interaction and integration testing, automated system testing with cucumber / capybara / RSpec with report generation using SimpleCov. The approach was to look for boundary cases and negative cases, null inputs, etc. That testing did cover all the aspects of the system, just the core functionalities (login, register, make bookmarks). These are most heavily used and any problems appear there first.
- Some aspects of the UI have been found to have bugs during ad-hoc testing to check if specific redirections work. This focusing focused on non-essential simple functions, least susceptible for error through main files being changed.
- The full website generated html was subject to accessibility testing with WAVE web accessibility tool, automated third party software. It was chosen for its simplicity and our lack of precise knowledge of accessibility standards. As seen from the screenshots below, a change to the colour palette was required.

Examples

Failed test screen

Successful test screen, maybe simplecov
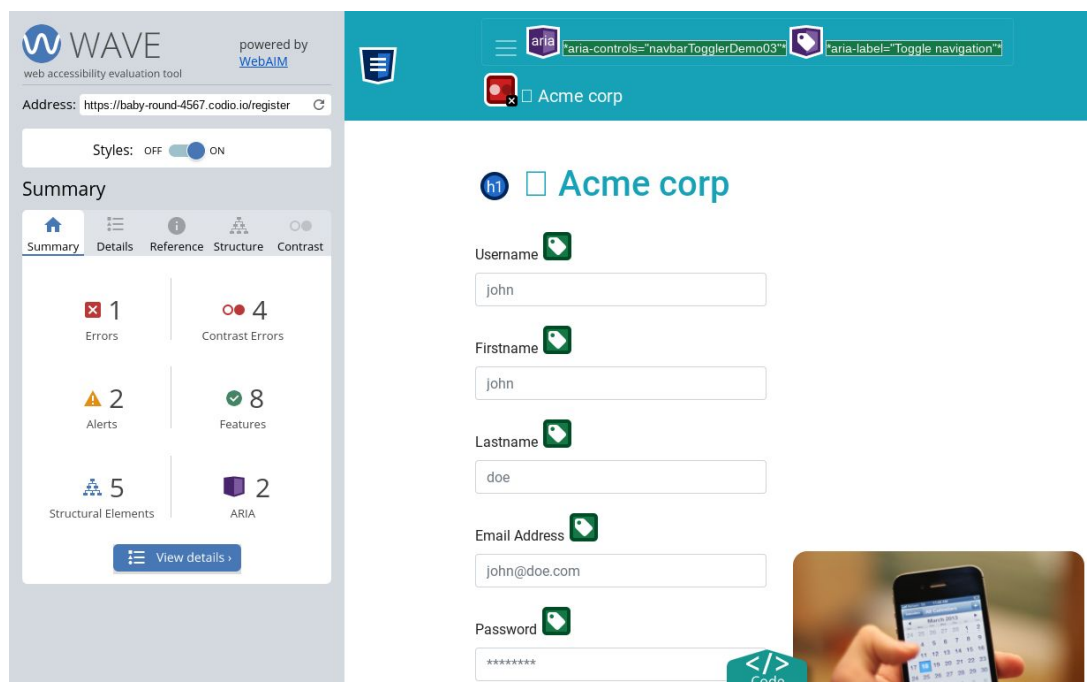
```
  Scenario: Password forgotten                    # features/login.fe
ature:28
    Given I am on the "login" page                # features/step_def
initions/web_steps.rb:3
    When I go to "Forgot Password?"               # features/step_def
initions/web_steps.rb:68
    Then I should see "Username or Email Address" # features/step_def
initions/web_steps.rb:93

1 scenario (1 passed)
3 steps (3 passed)
0m0.064s
Coverage report generated for Cucumber Features to /home/codio/worksp
ace/project/coverage. 185 / 781 LOC (23.69%) covered.
codio@baby-round:~/workspace/project$ git checkout database.db
codio@baby-round:~/workspace/project$
```

Running the tests

In the file tree open Gemfile, uncomment (remove '#' character from the beginning of every line starting with 'gem'. Navigate to the 'project' directory. Then run ' bundle install' to install the required third party code. Then type:

- 'cucumber' command to run all the tests.
- 'cucumber features/specific_test.feature' if there is a need to test a specific feature in isolation.
- 'Cucumber features/specific_test.feature --name "Scenario name" if testing specific scenario in a feature

Then navigate to the 'coverage' directory. There is a test report from the last run as an 'index.html' file.