

# Iteration 1: Team 6 Report

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## Running the system:

When you “git pull” our code from git lab, first run “bundle install”(it may takes over one minute) to install all the gems needed from the “gemfile”.(In case something goes wrong, we will list all the gems needed: sinatra, thin, sqlite3, minitest, capybara, cucumber, rspec, simplecov)

Then, follow the instructions below:

1. To start the system, open the codio terminal and git pull from out and enter the code “*ruby app.rb*”.
2. This will start the system, with the home page being the first page visible at the start. This will include options to:
  - a. Log in
  - b. Register
  - c. View bookmarks as a guest

3. When logging in, use the respective usernames and passwords:

Username:	Password:	Role:
- admin	admin	admin
- user	user	user (employee)
- role1	role1	admin
- role2	role2	user (employee)
- role3	role3	suspended user(registered)
- role4	role4	registered
- Non	non	guest → no user information required

## Role description:

<u>Role</u>	<u>Description</u>	<u>Capabilities</u>
Admin	The admin is the highest authority and is able to access all features possible as well as manage other users on the system.	<ul style="list-style-type: none"><li>• All “employee” capabilities</li><li>• View Users<ul style="list-style-type: none"><li>◦ Reset password</li><li>◦ Assign roles</li><li>◦ Suspend users</li><li>◦ Unsuspend users</li></ul></li><li>• View Requests</li><li>• Create a tag</li></ul>
User (employee)	The “user” role has greater capabilities that allow manipulation of bookmarks of their own as well as more interactions with other user bookmarks.	<ul style="list-style-type: none"><li>• All “registered user” capabilities</li><li>• Create/Add bookmarks</li><li>• View their bookmarks</li><li>• Edit their bookmarks</li><li>• Rate others bookmarks</li><li>• Add Comments to others bookmarks</li></ul>
Suspended User	A user that an admin has suspended, with the capabilities of a user being revoked.	<ul style="list-style-type: none"><li>• All “Guest” capabilities</li><li>• Ability to contact admins and make a request.</li></ul>
Registered	Similar to the guest role, registered users are awaiting approval from Admins to become a “user” role.	<ul style="list-style-type: none"><li>• All “Guest” capabilities</li><li>• Able to send requests to admins</li><li>• All the stuffs that a guest can do</li></ul>
Guest	A guest has very limited features and has no account on the website. All users of the site are initially guests, until they sign into their accounts, and are on the welcome page.	<ul style="list-style-type: none"><li>• View all bookmarks<ul style="list-style-type: none"><li>◦ Use filters/search options</li><li>◦ View details of a bookmark</li><li>◦ Report a bookmark</li><li>◦ View comments</li></ul></li><li>• Ability to register</li></ul>

## Amendments To Stories and Changes and stories planned to tackle for each iteration:

### Basic stories:

Green Underline = Added to the story .

Red = Removed from the story.

For iteration 1, we plan to choose most of the high priority stories and most of the stories related to the user login system. Then in iteration 2, we will focus on the stories related to bookmarks and improve features based on feedback from our clients from iteration 1.

Stories we planned to do in iteration 1 are annotated with “(Iteration 1)” in the client priority column.

Stories we planned to do in iteration 2 are annotated with “(Iteration 2)” in the client priority column.

Stories after iteration 1

In the Estimated Effort column :

Red background= stories left and finished to iteration2.

Green background= stories finished in to iteration1.

Orange background=stories started but finished in iteration2.

User story	Acceptance Criteria	Reason for Amendments	Client Priority	Estimated Effort
As any user I want to open bookmarks to access a resource.	<u>When I am in the home page, I can see a “View all bookmarks” button.</u> <u>If I click the button, I will be taken to a page where I can view all the bookmarks and each of them has a “details” button.</u>	Added detail due to implementation.	High <b>Iteration 1</b>	1

	<p>When I click on the 'open bookmark' <u>details</u> link I will see the resource.</p> <p><u>When I click the “back to all bookmarks” button at the top of the screen, I will be taken back to “view bookmark” page.</u></p> <p>If the resource is invalid I will see a “invalid link” message.</p>			
As any user I want to filter bookmarks by rating so that I can find the right bookmark.	<p><u>When I am on the view bookmark page, I will see a dropdown box and a “filter” button</u></p> <p>When I click the button called “filter”, I will see two options called “filter by rating” and “filter by date”.</p> <p>When I select “ filter by rating” <u>and click the button</u>, I will see the bookmarks on page ranked in descending order according to the rating <b>star</b> rated by people who are registered.</p>	Change due to the actual layout of the webpage	Med <b>Iteration 2</b>	8
As any user I want to filter bookmarks by date created so that I can find the right bookmark.	<p><u>When I am on the view bookmark page, I will see a dropdown box and a “filter” button</u></p> <p>When I select “ filter by date” <u>and click the button</u>, I will see the bookmarks on page ranked according to the creating dates, the latest comes first.</p>	Change due to the actual layout of the webpage	Med <b>Iteration 2</b>	8
As any user I want to search bookmarks so that I can find the right bookmark.	<p>When I type the <b>full name</b> <u>title</u> of the bookmark or some key word of the <b>full name</b> <u>title</u> of the bookmark in the search box and click “search” , I will see a page of the right bookmark.</p> <p>If the content I type is invalid or does not exist ,I will see a “Sorry, no results” message when click “search”.</p> <p>If I type nothing in the search box, the button “search” is disabled.</p>	Slight adjustment to wording and removed unnecessary disablement of the search button.	High <b>Iteration 1</b>	4
As any user I want to report bookmarks so	When I see an unsuitable bookmark and I want to report it, I can click the “report” button <b>in the bottom of each bookmark</b>	Different positioning of report buttons due	Med <b>Iteration 1</b>	8

that I can suggest an unsuitable bookmark.	<p><u>behind each bookmark</u></p> <p>When I click the “report” button, I will see <u>the button is disappear and the status of the bookmark will be “has been reported”</u>. a pop out window with a textarea and a “submit” button.</p> <p>When I type the reasons and click “submit”, I will see a “Thank you for submitting” message.</p> <p>If I don’t type anything in the textarea, the “submit” button is disabled.</p>	to layout of website/look, reduce pop up windows making it more streamline.		
As any user I want to create an account so that I can become registered.	<p>When I click “create account” <u>”Register” at the top of the screen on the home page</u> I am taken to the account creation page.</p> <p>When I enter a company username(emails) and , a new password <u>and my basic information</u> and click submit I am able to do all the activities associated with a registered user.</p> <p>When I enter a company username and a new password and click submit I am taken to the search page.</p> <p>If I enter a company username but no password and click submit I am shown a “invalid password” error.</p> <p>If I enter a password but no company username and click submit I am shown a “invalid username” password.</p> <p><u>If I leave any column empty and click submit, I will receive a message which says “Please ensure all fields are filled correctly”.</u></p> <p><u>If I use an email which has been registered, I will receive a message which says “Your email has been taken.Please use another one.”.</u></p> <p><u>If I use an invalid email address, I will receive a message which says “Your email address is invalid.Please change</u></p>	Improved wording of story.	High  <b>Iteration 1</b>	8

	<p><u>it.”.</u></p> <p><u>If I type different text in “password” and “confirm password” and click submit, I will receive a message which says “The “Password” and “Confirm Password” are not the same”.</u></p>			
As a registered user I want to log into my account so that I can access my account.	<p>When I click “login” <b>at the top of the screen on the home page</b> I am taken to the login page.</p> <p>When I enter my correct username and password and click submit on the login page I am able to do all the activities associated with my privilege level.</p> <p>When I enter my correct username and password and click submit on the login page I am taken to the <b>search home</b> page.</p> <p>When I am logged in there will be a logout button at the top of the screen.</p> <p>If I enter an incorrect username and password combination on the login page I am shown a <b>“invalid username and password combination”</b> <b>“Invalid Username or Password. Please try again.”</b> message.</p> <p><u>If my account is under suspending, I will receive a “Your account has been suspended. Please contact admin” message and fail to log in.</u></p>	Slight layout change and wording change to add information for the user on the site.	High <b>Iteration 1</b>	4
As a registered user I want to logout of my account so that unauthorised users cannot access it.	<p>When I click on the logout button at the top of the screen I am taken to a “goodbye” page.</p> <p>When I click on the logout button at the top of the screen I can only do guest activities.</p>		High <b>Iteration 1</b>	1
As a registered user I want to comment on bookmarks so that I can add	<p>When I click on a bookmark in my search results, I will see a <b>comment box</b> <b>“Add comment button”</b>.</p> <p><b>When I click on a bookmark in my search</b></p>	Change due the relationship of the web pages and add more exception	Med <b>Iteration 2</b>	8

information about it.	<p>results, I will see a submit comment button.</p> <p><u>If I click the button, I will be taken to the “add comment page”.</u></p> <p>If I have entered text into the comment box <u>all the fields</u> and click submit, all users will see my comment in the resource details <u>“view comments”</u> page.</p> <p>If I have not entered text into the comment box <u>all the fields</u> and click submit I will receive an “invalid comment” <u>“Please ensure all fields are filled correctly”</u> message.</p> <p><u>If I am the creator of this bookmark, I will receive a “Sorry. You can't comment the bookmark created by you.” message when I click submit.</u></p>	handlers.		
As a registered user I want to rate bookmarks so others can see how good the resource is.	<p>When I click on a bookmark in my search results, I will see five white stars.</p> <p>When I click on a star (and all stars) to its left will turn yellow.</p> <p>When I click on a star it will calculate the resources new rating by doing a mean average (where the value of the current rating is the number of the star, starting from the left).</p> <p>When other users view the resources details they will see its rating as an integer out of 5 (displayed as yellow stars).</p> <p><u>If I am on the bookmark details page, I will see a dropdown list and a “Rate” button.</u></p> <p><u>When I select a value(0-5) and click the button it will calculate the resources new rating by doing a mean average and the number of ratings will increase.</u></p> <p><u>If I rate the bookmark created by myself I will receive a “Sorry. You can't rate the bookmark created by you.” message.</u></p>	Change due to we change the relationship of the web pages and add more exception handlers.	Med <b>Iteration 2</b>	8

	<u>If I am on the view bookmark page, I will see the rating of each bookmark.</u>			
As an employee I want to create a bookmark.	<p>When I click <b>create a bookmark</b> <u>“Add bookmark”</u> button, I will see an <b>option</b> page which I can create a bookmark.</p> <p>When I enter the <b>edit</b> page, I will be able to create a title, add texts <u>and so on.</u></p> <p>If I click a button called <b>“upload”</b> <u>“Add”</u> which is at the end of the page, I will be able to share my bookmark.</p> <p><u>If I leave any column empty and click submit, I will receive a message which says “Please ensure all fields are filled correctly”.</u></p> <p>If I click the save button which is at the end of the page, I will be able to exit create bookmark page without sharing my work. .</p>	Creating and editing bookmark logic change as they are different sections.	High <b>Iteration 1</b>	16
As an employee I want to be unable to create a duplicate bookmark.	If I click the <b>“upload”</b> <u>“Add”</u> button, and there is a current bookmark <b>that</b> <u>whose title</u> is the same, I will receive a “duplicate bookmark” message and my bookmark will not be uploaded.	Wording change	Low <b>Iteration 2</b>	4
As an employee I want to add tags while creating bookmarks.	<p>When I am creating a bookmark, I will see <b>an option button.</b><u>some dropdown lists</u></p> <p>If I click the edit button, I will be able to add a pre-existing tag.</p> <p>If I click the edit button, I will be able to add a new tag.</p> <p><u>If I choose the tags which causes a duplication and click the button, I will receive a “The bookmark contains duplicated tags. Please change them to unique.” message.</u></p>	Change due to the actual layout of the webpage and add more exception handlers.	High <b>Iteration 2</b>	8
As an employee I	<u>If I click the “view my bookmark”, I will</u>	Change due to	Low	8



want to add tags to an existing bookmark.	<p><u>be taken to the “view my bookmark page”</u></p> <p><u>When I am on the “view my bookmark”,</u> I will see a button to edit my bookmark.</p> <p>If I click edit option, I will be able to add tags to an existing bookmark.</p>	alteration in the relationship of the webpages.	Iteration 2	
As an employee I want to view details of bookmarks.	<p>When I <b>open one of the bookmarks</b> <u>am on the “view bookmarks” page</u>, I will see a button to show bookmark’s detail <u>for each bookmark</u>.</p> <p>If I click the details button, I will be able to view the details of the bookmarks.</p>	Wording change to add detail	High Iteration 1	2
As an employee I want to delete my bookmarks so that out of date links can be removed.	<p><u>When I am in the home page and logged in, I can see a “View my bookmark” button.</u></p> <p><u>If I click the button, I will be taken to a page which I can see all my bookmarks and each of them has a “Edit” button.</u></p> <p>When I <b>click “Edit”</b> to open one of my bookmarks, I will see a button to delete it.</p> <p>When I click on the button, <b>I will see a pop out alert whether to delete the bookmark or not.</b><u>this piece of my bookmark will be deleted.</u></p> <p><b>If I click on “yes”, the bookmark will be deleted and no longer be available when searched again.</b></p> <p><b>If I click on “no”, the bookmark will not be deleted.</b></p>	Changed how to access the delete option of the user bookmark option, so it’s in the edit section.	Med Iteration 2	4
As an employee I want to update my bookmarks so that changes can be made to details and links.	<p><u>If I click the “view my bookmark”, I will be taken to the “view my bookmark page”</u></p> <p>When I <b>open one of my bookmarks</b><u>I am on the “view my bookmark”,</u> I will see a button to edit my bookmark.</p> <p>When I click on the button, I will enter an edit mode/page.</p> <p>When on the edit bookmark page I will be</p>	Change due to alteration in relationship of the webpages and add more exception handlers.	Med Iteration 1	16

	<p>able to change the title, contents and tags of the bookmark and an update button.</p> <p>If I did not change anything the update button will be disabled <u>and receive a “You need to change something” message.</u></p> <p><u>If I change the title which causes a duplication and click the button,I will receive a “The title of your bookmark already exists. Please change another one.” message.</u></p> <p><u>If I leave any column empty and click the button, I will receive a “Please ensure all fields are filled correctly.” message.</u></p> <p><u>If I change the tags which causes a duplication and click the button, I will receive a “The bookmark contains duplicated tags. Please change them to unique.” message.</u></p> <p>If I have changed anything <u>properly</u>, I will be able to click on the update button.</p> <p>When the edited bookmark is released, the comment and the rating will be reset</p> <p>When the edited bookmark is released the date created will change accordingly.</p> <p>When the edited bookmark is released, the users will be able to search it with the new date, content and tags.</p> <p>When the edited bookmark is released, the user will not be able to search for it with the old date, content and tags.</p>			
As an admin I want to suspend <u>and unsuspend</u> users so that I can control the system and prevent certain users from	<p>When I click on the username, I will enter a user details page and see the current status of the user.</p> <p>When on the details page, I will see a button to suspend the user.</p> <p>When I click on the button, I will see a pop</p>	Adding an unsuspend option as well as moving it outside the user details so it's visible in all users' pages.	High  <b>Iteration 1</b>	4

logging in.	<p>out alert whether to suspend the user or not.</p> <p>If I click on yes, the user status will be changed to suspended and the user will not be able to log in.</p> <p>If I click on no, the user status will be unchanged.</p> <p><u>When I go to the “all users” page, I can click the “suspend” button behind each user to suspend someone and I can see the change of his or her status.</u></p> <p><u>When I go to the “all users” page, I can click the “unsuspend” button behind each user to unsuspend someone and I can see the change of his or her status.</u></p>			
As an admin I want to be able to <u>unreported or</u> delete someone’s bookmarks so that I can maintain the system.	<p><u>When I am in the “view bookmark” page, I shall see which bookmark is reported.</u></p> <p><u>If I click the “unreported” button, the state of the bookmark will back to “unreported”.</u></p> <p>When I open someone’s bookmark, I will see a delete button/<u>option</u>.</p> <p>When I click on the delete button, <u>the bookmark will be delete</u>. I will see a pop out alert whether to delete the bookmark or not.</p> <p>If I click on “yes”, the bookmark will be deleted and no longer available when searched again.</p> <p>If I click on “no”, the alert will be closed and the bookmark will not be deleted.</p>	Made the report status more visible and removed pop up for deleting a bookmark to make it more user friendly.	Low <b>Iteration 2</b>	2
As an admin I want to assign roles so that I can manage the user account types.	<p>When I click <u>on the username the “suspend” button behind each user</u>, I will enter a user details page.</p> <p>When I <u>click on the username am in the detail page</u>, I will see a drop down list to</p>	Slight amendments to wording and order of what events may occur.	High <b>Iteration 1</b>	4

	<p>change the user account <b>type level</b>.</p> <p>When I click on the drop down list, I will be able to change the user account <b>type level</b> among registered user, employee and admin.</p> <p>When I click on the <b>update save</b> button the user's account <b>type level</b> will change.</p>			
As an admin I want to view all users.	<p><u>When I log in as a admin, I will see a “view all users” button in the home page.</u></p> <p><u>When I click the “view all users” button, I will be taken to the “all users” page.</u></p> <p>When I open the <b>all</b> user page, I will see a full list of all users that are registered.</p> <p>If I want to search for a specific user, I can enter their name and the user(s) with the name will be displayed in the list.</p> <p>When viewing the list of users, the list will be displayed in <b>alphabetical order the order of their user id</b>.</p> <p><u>If the content I type is invalid or does not exist, I will see a “Sorry, no results” message when click “search”.</u></p>	Added a page to view all users with search options and default order is based on id number.	Med <b>Iteration 1</b>	2
As an admin I want to view a users details.	<p><b>When I click on a user, I will be able to see the users details in a pop-up window.</b></p> <p><b>When the window is loaded, it will display the users details such as name, id, email, department.</b></p> <p><b>When I click the close button, the user detail window will close and the list of users will be shown as before.</b></p> <p><u>When I click the “suspend” button behind each user, I will enter a user details page.</u></p> <p><u>When I am in the details page, I can see the user details like id, name.</u></p>	Removed pop up window for user details to make the site more streamline.	Med <b>Iteration 1</b>	2

	<u>password, phone number and so on.</u>  <u>When I click the “back to user ” button at the top of the screen, I will be taken back to “all user” page.</u>			
As an admin I want to change a users password.	<p>When I <b>click on the user am in the details page</b>, I will see a reset password button.</p> <p>When I click on “reset password”, I will see a new password input field and a submit button.</p> <p>When I click on submit with a new password in the input field the user’s password is changed.</p> <p>When the user’s password is changed they can log in with their new password.</p> <p>When the user’s password is changed they cannot log in with their <b>new old</b> password.</p>	Slight wording change.	Low  <b>Iteration 1</b>	8

### New Stories:

Added due to the requirements of the clients during iteration1 presentation or just improved for the functionality of the websites. They are all finished in iteration2:

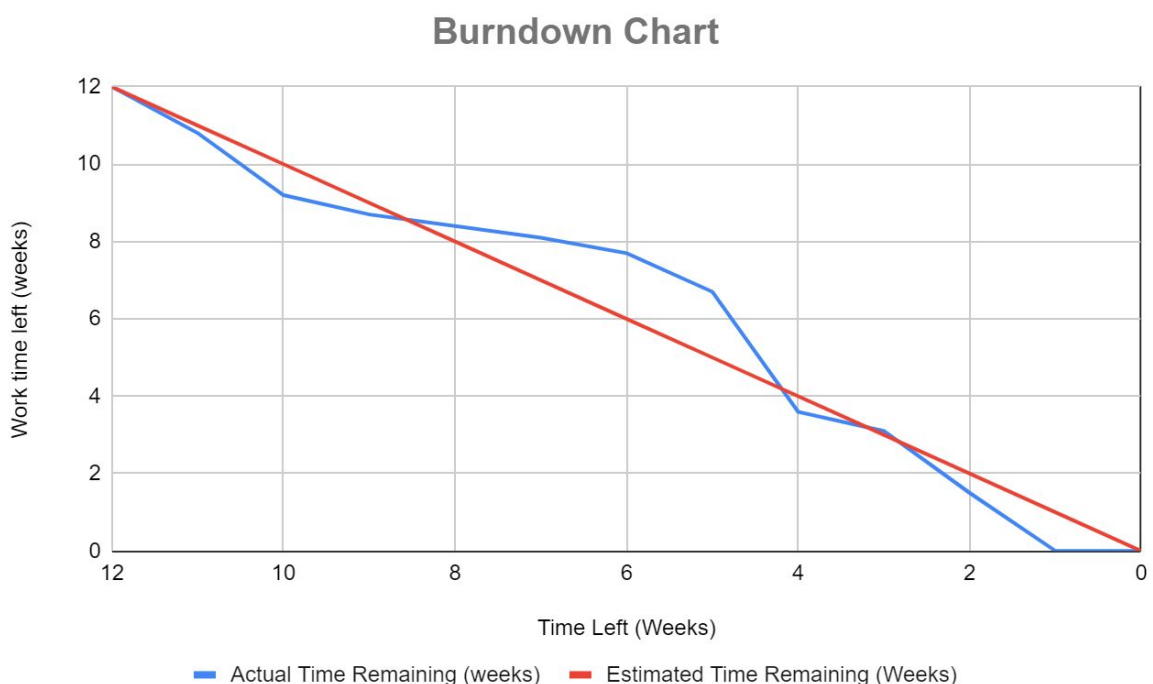
User story	Acceptance Criteria	Reason for Amendments	Client Priority	Estimated Effort
As a registered user, I want to create a request to the admin so that they can reset my password or unsuspend my account or something else.	<p>If I am on the home page, I can see a “Create Request” button.</p> <p>If I click the button, I will be taken to the “create request” page.</p> <p>If I am on the login page and forget my password or find my account suspended, I will see a button appear.</p> <p>If I click the button appear, I will also be taken to the “create request” page.</p> <p>When I type everything properly in the “create request” page and click “submit”, the admin will receive my</p>	Client new requirements	Low	4

	<p>request.</p> <p>When I leave the fields empty and click submit, I will receive a "Please ensure all fields are filled correctly." message.</p> <p>When I type a non-existence username and click submit, I will receive a "The username does not exist, please type the right one." message.</p>			
As a admin, I want to see all the requests so that I can do something to handle the requests	<p>If I am on the home page, I will see a "View request" button.</p> <p>If I click the button, I will be taken to "view request" page and see all the requests.(unread ones on top, read ones on the bottom)</p> <p>When click the button "Mark as read" or "Mark as Unread", I can change the status of each requests.</p>	Client new requirements	Low	4
As a admin, I want to create new tags so that users can have more choices.	<p>If I am on the home page, I will see a "Create Tags" button.</p> <p>If I click the button, I will be taken to the "Create Tags" page.</p> <p>If I type a new tag and click "Create", a new tag is created and users can use it.</p> <p>If I type nothing and click "Create", I will receive a "You should type something before you submit." message.</p> <p>If I type a tag which has already existed in the database, I will receive a "The tag you want to create already exists. Please change to a new one." message.</p>	Improve the functionality	Low	4
As an admin, I want to filter the bookmarks by reported so that I can see all the bookmarks being reported.	<p>When I am on the view bookmark page, I will see a dropdown box and a "filter" button</p> <p>When I select "filter by reported" and click the button, I will see the bookmarks on the page ranked according to the reported status(being reported on top).</p>	Improve the functionality	Low	2

## Global and Non-functional requirements:

- The solution must be easy to use
- The solution must look professional
- The solution must be aesthetically pleasing
- The solution should be web-based
- The solution must have the ability to operate on all computers within the organisation
- The solution must be easy to maintain

## Burndown Chart:



Above, shows the burndown chart for the 12 week of the project, with the end of iteration 1 being 4 weeks remaining. The blue lines indicated that at the start and finish of the project (weeks 12-7 and 4-0) we were below the estimated remaining time, meaning we are ahead of schedule. However, between weeks 8 and 4, our progress slowed, possibly due to external circumstances. The burndown chart shows that we completed the expected work a week before estimated time which implies that some extra features or work could be added to the project. The burndown chart doesn't include the new stories at the end of iteration 1, requested to be added to the project by the clients. This means there was extra work, mainly in the last weeks, towards the extra stories that the client wanted.

Table used for burndown chart:

Tasks/Features For Iteration 1	Start (Estimated time-weeks)	Week Number											
		1	2	3	4	5	6	7	8	9 (Iteration End)	10	11	12 (End)
Implement Basic Database	1.5	1.3	0.9	0.4	0.1	Complete							
Create an accounts	0.6	Complete											
Log in and out of accounts	0.4	Complete											
Create bookmarks	1.2	1.2	Complete										
View/open bookmarks	0.2	0.2	0.2	0.2	0.2	0.2	Complete						
Report bookmarks	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Complete				
Search bookmarks	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	Complete				
Update and edit bookmarks	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.5	0.5	Complete		
Admin suspend/unsuspend users	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Complete					
Admin assigns roles to users	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Complete					
Admin view all users	0.1	0.1	0.1	0.1	0.1	0.1	Complete						
Admin view user details	0.1	0.1	0.1	0.1	0.1	0.1	Complete						
Admin change user password	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Complete					
Tasks/Features For Iteration 2													
Admin unreport and delete users/bookmarks	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Complete				
Delete own bookmark	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Complete				
Rate bookmarks	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.3	Complete		
Filter bookmarks by rating and date	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	Complete		
Comment on bookmarks	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3	Complete	
Add tags to existing bookmarks	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Complete	
Add tags to new bookmarks	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Complete	
Week	12	11	10	9	8	7	6	5	4	3	2	1	0
Actual Time Remaining (weeks)	12	10.8	9.2	8.7	8.4	8.1	7.7	6.7	3.6	3.1	1.5	0	0
Estimated Time Remaining (Weeks)	12	11	10	9	8	7	6	5	4	3	2	1	0

## Test:

For the test part, we did both the unit test and the system test.

### ----Automated/Unit Test:

For unit testing, we created a *bookmarks\_test\_class.rb* to test *bookmarks.rb* and *users\_test\_class.rb* to test *users.rb*. We then used the *minitest* module to test each method in the two files. The *minitest* module only tests what the method returns. For methods which are designed to return a value this is not an issue, however, for methods which do not return a value we were only able to test if the method ran and returned nothing (as expected). Moreover, for tests which return hash values we had to output the method and then use *assert\_output* as *assert\_equal* (the technique taught during lectures) failed to correctly test for there hash values.

To run the tests:

- Delete database/test\_class\_database.sqlite(if it exists)
- Run “*sqlite3 database/test\_class\_database.sqlite < create\_test\_class\_database.sql*”
- Run “*ruby users\_test\_class.rb*” or “*ruby bookmark\_test\_class.rb*” run the tests.
- NB:You must follow these steps every time to ensure test data has not been changed

Results:



```

codio@formal-nova:~/workspace$ sqlite3 database/test_class_database.sqlite < create_test_class_database.sql
codio@formal-nova:~/workspace$ ruby bookmark_test_class.rb
Run options: --seed 15119

# Running:

.....

Finished in 1.254643s, 15.1437 runs/s, 43.8372 assertions/s.
19 runs, 55 assertions, 0 failures, 0 errors, 0 skips
codio@formal-nova:~/workspace$ █

```

Results for ruby users\_test\_class.rb

```

codio@formal-nova:~/workspace$ sqlite3 database/test_class_database.sqlite < create_test_class_database.sql
codio@formal-nova:~/workspace$ ruby users_test_class.rb
Run options: --seed 60702

# Running:

.....

Finished in 1.828929s, 10.3886 runs/s, 33.8996 assertions/s.
19 runs, 62 assertions, 0 failures, 0 errors, 0 skips
codio@formal-nova:~/workspace$ █

```

Results for ruby bookmark\_test\_class.rb

## ---Systematic Test:

For the system test, we create several feature files such as "login.feature", "view\_bookmark.feature" in order to cover all the features in our websites, like someone goes into the actual webpage to test all the functions. In total, we write 69 different scenarios to test the performance of our website as a whole. We use cucumber and coverage to show how well the result is and what percentage of the codes is covered by the test.

To run the tests:

- Delete database/bookmark\_system.sqlite
- Run "sqlite3 database/bookmark\_system.sqlite<create\_databases.sql"
- Run "cucumber features" to run the tests.
- NB: You must follow these steps every time to ensure test data has not been changed.

Results:

```
69 scenarios (69 passed)
573 steps (573 passed)
0m3.661s
Coverage report generated for Cucumber Features to /home/codio/workspace/project/coverage. 607 / 628 LOC (96.66%) covered.
```

Results for system test(cucumber) on command

All Files ( 96.66% ) Generated 2 minutes ago

All Files ( 96.66% covered at 7.21 hits/line )

3 files in total.  
628 relevant lines, 607 lines covered and 21 lines missed. ( 96.66% )

Search:

File	% covered	Lines	Relevant Lines	Lines covered	Lines missed	Avg. Hits / Line
app.rb	94.37 %	628	373	352	21	5.08
models/bookmark.rb	100.00 %	294	153	153	0	7.97
models/users.rb	100.00 %	195	102	102	0	13.88

Showing 1 to 3 of 3 entries

Generated by [simplecov](#) v0.18.5 and [simplecov-html](#) v0.12.2 using Cucumber Features

Results for system test(cucumber) on coverage/index.html

