

# ***Totem***

## Incremental Testing and Regression Testing

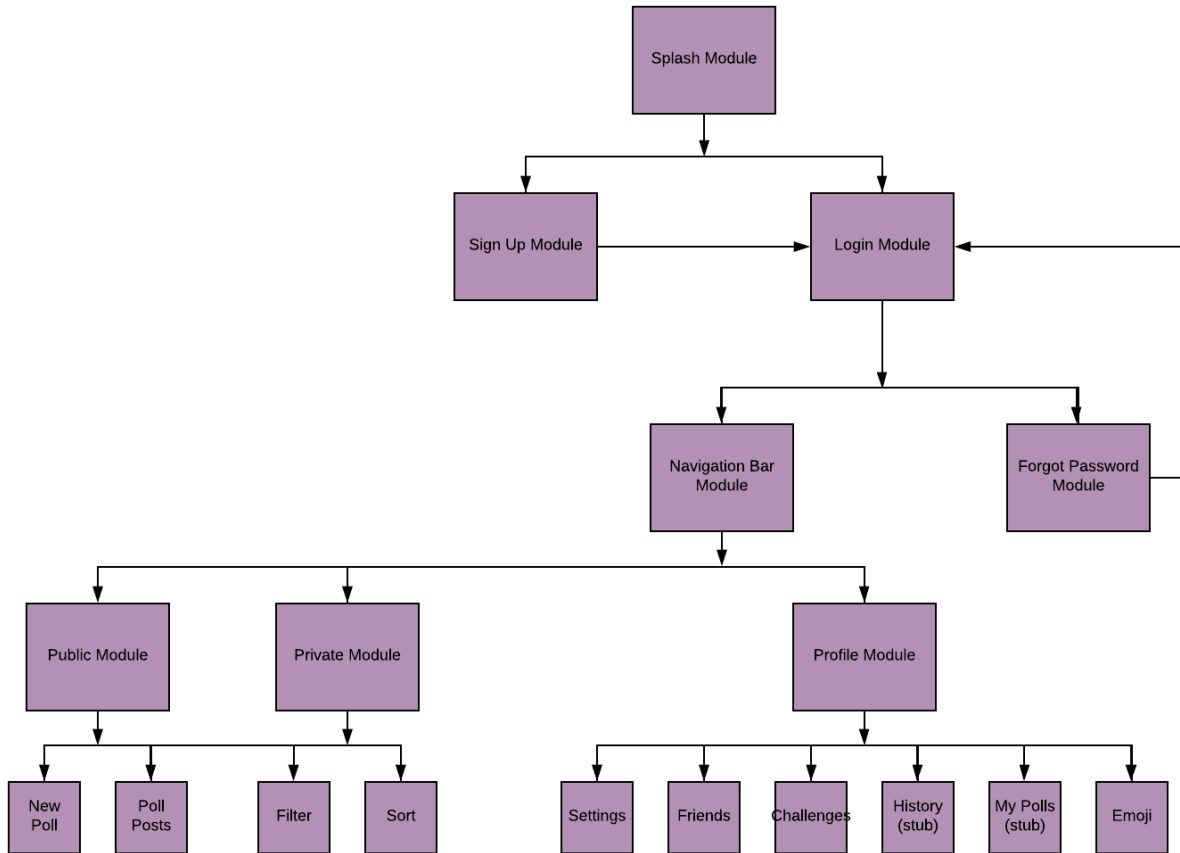
Team 20

Cameron Glass, Todd Griffin, Dominic Miller,  
Nirali Rai, and Rishabh Ramsisaria

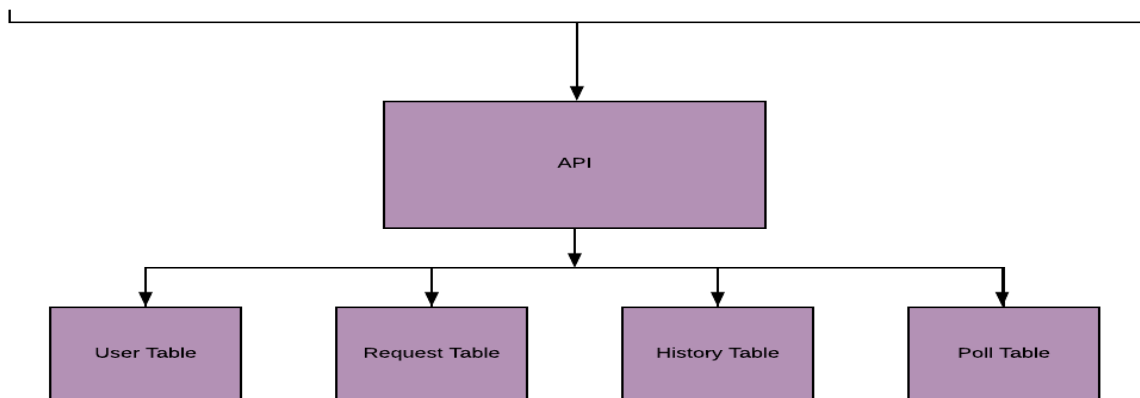
## Classification of Components (25 points)

Define all components - 20 points

Client Structure:



Server Structure:



Component	Input	Output	Dependent
<b>Splash Module</b>	N/A	Login or Sign Up	N/A
<b>Sign Up Module</b>	User/Splash	Login	API/User Table
<b>Login Module</b>	User/Splash	Public	API/User Table
<b>Navigation Bar Module</b>	User/Login	Public/Private/Profile/Tournament	N/A
<b>Forgot Password Module</b>	User/Login	Login	API/User Table
<b>Public Module</b>	User/Nav Bar	New Poll/Poll Posts/Sort/Filter	API/User Table
<b>Private Module</b>	User/Nav Bar	New Poll/Poll Posts/Sort/Filter	API/User Table
<b>Profile Module</b>	Nav Bar	Settings/History/Friends/Challenges/Emoji/My Polls	API/User Table
<b>New Poll Modal</b>	Public/Private Module	My Polls Modal	API/Poll Table
<b>Post (in Feed)</b>	Public/Private Module	Public/Private Module/History Modal	API/Poll Table
<b>Sort Modal</b>	Public/Private Module	Public/Private Module	API/Poll Table
<b>Filter Bar</b>	Public/Private Module	Public/Private Module	API/Poll Table
<b>Settings Module</b>	Profile Module	N/A	API/User Table
<b>Friends Modal</b>	Profile Module	N/A	API/Request Table
<b>Challenges Modal</b>	Profile Module	N/A	API/Polls Table
<b>History Modal (Stub)</b>	Profile Module	N/A	API/History Table

<b>My Polls Modal (Stub)</b>	Profile Module	N/A	API/Polls Table
<b>Emoji Modal</b>	Profile Module	N/A	API/User Table
<b>Poll Table</b>	API	API	N/A
<b>API Module</b>	All Client Components	All Client Components	All Tables in the Database
<b>User Table</b>	API	API	N/A
<b>Requests Table</b>	API	API	N/A
<b>History Table</b>	API	API	N/A

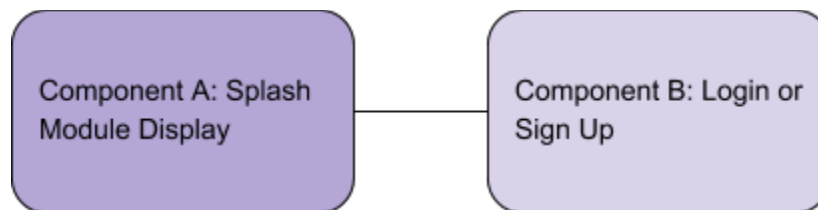
Which form of incremental testing did you follow - 5 points

We implemented the **top-down** testing strategy in our project. Using this method we were able to locate and fix the critical design flaws in the beginning before moving on, allowing us to stay up to date with our working prototype. This also allowed us to simulate the workings of the backend when testing the frontend, and frontend when testing the backend, without having to be concerned with their functionality at this time. This worked well for us because we wanted to be able to independently test the program as we go, before completely linking both components. On the contrary, we avoided the route of bottom-up testing. We decided to do that because we wanted to identify and fix the design flaws early in the process, working on the critical modules later. This also worked well with our agenda because with bottom-up testing we would not have any form of a working application till everything has been tested, whereas with top-down we were able to provide a working application early in the process. In a fast paced software development process, top-down testing seemed to be the best fit for our application.

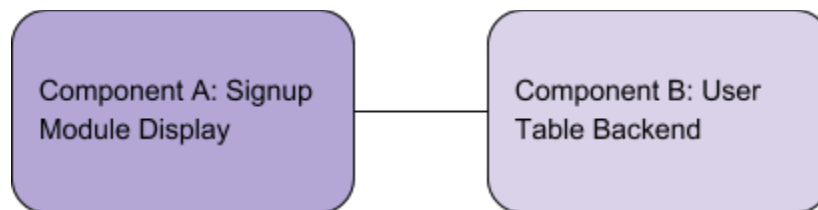
## Incremental and Regression Testing (70 points)

- Incremental and regression testing should be conducted on a per module basis. We will be looking for testing to be completed on each of your modules.
- We expect you to list down the defects found during incremental testing and regression testing of each module. The defects will be evaluated based on how well the defect is described, the severity assignment and the solutions provided.
- Given below is a sample regression test case example for a calculator:

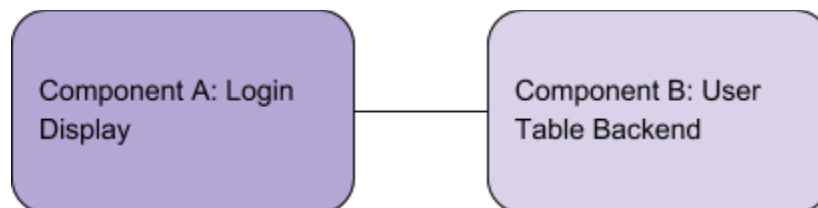
### Incremental Testing



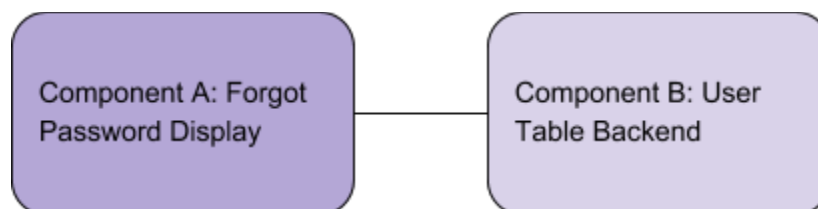
No defects found



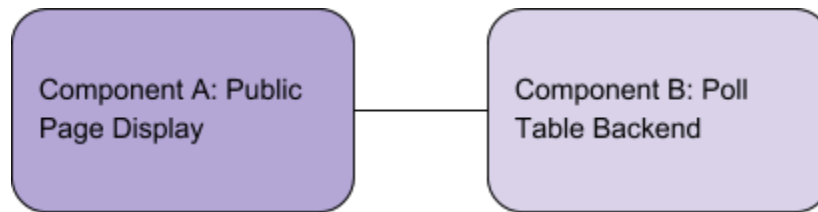
No defects found



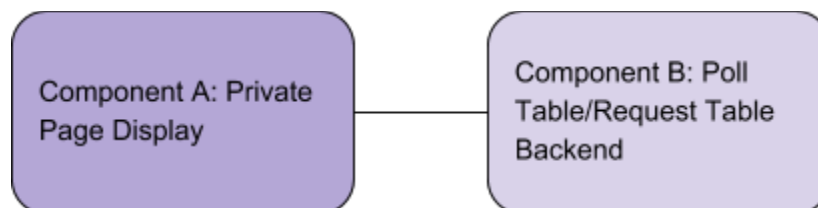
No defects found



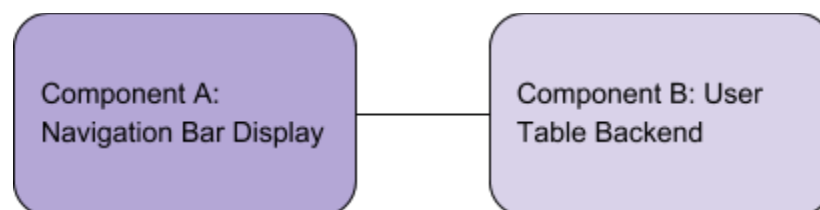
No defects found



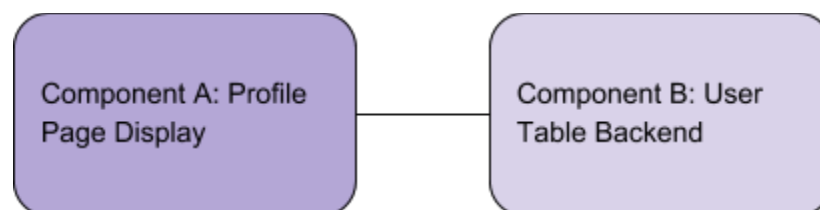
Defect No.	Description	Severity	How To Correct
1	Component A should only show polls that are of the theme stored in Component B	2	An API call to Component B must be implemented which returns the polls of only the selected themes
2	Component A should only show polls that are of the state stored in Component B	2	An API call to Component B must be implemented which returns the polls of only the selected state
3	Component A should show a clear filter button when a filter has been set	3	An API call to Component B must be implemented which returns true if a filter has been selected
4	Component A should show a sorted list of polls based on the sorting criteria	2	An API call to Component B must be implemented which returns the appropriately sorted feed list
5	When a title is entered into Component A the poll searched for should show up	2	An API call to Component B should search through the poll objects and return the ones with the appropriate title
6	Component A should show a clear search button when a search has been entered	2	An API call to Component B must be implemented which returns true if a search has been selected
7	Component A should not show the scores until after the vote has been sent	1	An API call to Component B must be implemented which alerts when an option has been selected.
8	Component A should show the scores after the vote has been sent	1	An API call to Component B must be implemented which detects if an option has been selected



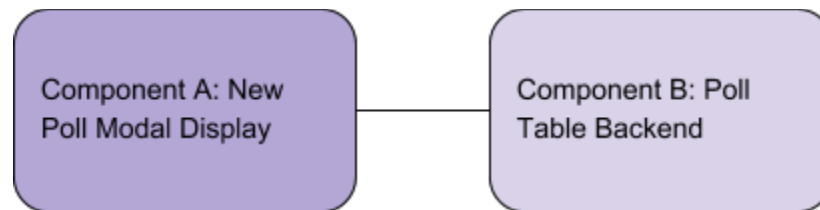
Defect No.	Description	Severity	How To Correct
1	Component A should only show polls that are of the theme stored in Component B	2	An API call to Component B must be implemented which returns the polls of only the selected themes
2	Component A should only show polls that are of the state stored in Component B	2	An API call to Component B must be implemented which returns the polls of only the selected state
3	Component A should show a clear filter button when a filter has been set	3	An API call to Component B must be implemented which returns true if a filter has been selected
4	Component A should show a sorted list of polls based on the sorting criteria	2	An API call to Component B must be implemented which returns the appropriately sorted feed list
5	When a title is entered into Component A the poll searched for should show up	2	An API call to Component B should search through the poll objects and return the ones with the appropriate title
6	Component A should show a clear search button when a search has been entered	2	An API call to Component B must be implemented which returns true if a search has been selected
7	Component A should not show the scores until after the vote has been sent	1	An API call to Component B must be implemented which alerts when an option has been selected.
8	Component A should show the scores after the vote has been sent	1	An API call to Component B must be implemented which detects if an option has been selected



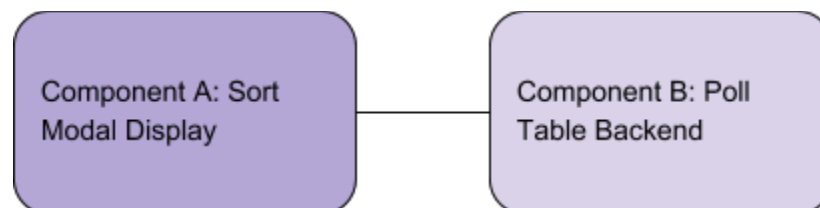
No defects found



Defect No.	Description	Severity	How To Correct
1	When Component A was loaded, the win rate for the user did not depict accurate values	2	An API call to retrieve the win rate from Component B must be implemented
2	When Component A was loaded, the tiki tally for the user did not depict accurate values	2	An API call to retrieve the tiki tally from Component B must be implemented
3	When Component A was loaded, the polls created for the user did not depict accurate values	2	An API call to retrieve the polls created from Component B must be implemented

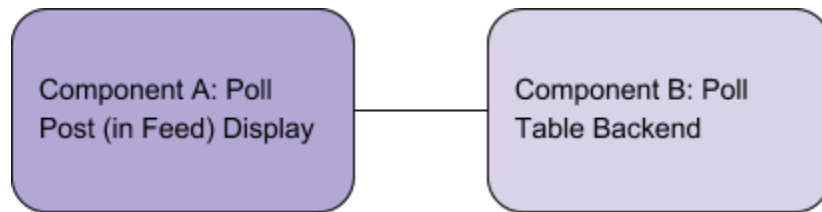


Defect No.	Description	Severity	How To Correct
1	The modal in Component A should be dynamic to change based on personal or challenge poll. This includes challenger request and the correct amount of image uploads	3	Fix the UI to be dynamic and switch requests being sent to Component B before the user hits submit.
2	Poll theme options in Component A need to display all available themes from the backend in order to prevent an error when filtering.	2	On page load, obtain all currently active themes from Component B and make them selectable in the modal.

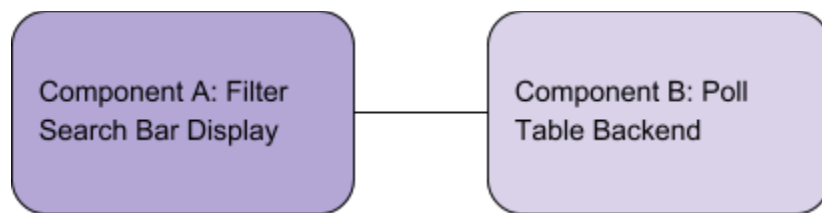


No defects found

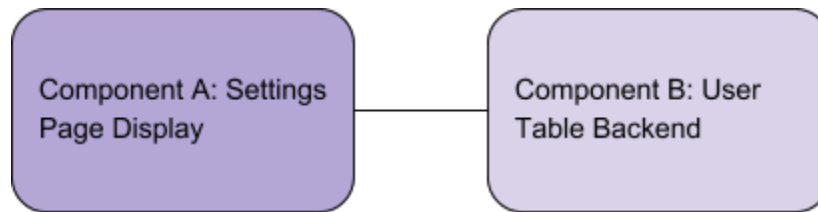




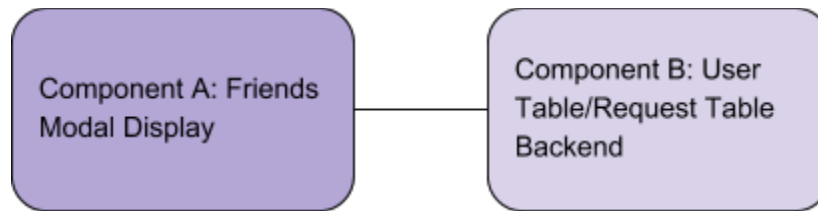
Defect No.	Description	Severity	How To Correct
1	When a poll post is loaded in the feed (Component A), it must display accurate vote values if the poll has been voted on by the user	1	An API call to retrieve the correct vote percentages from Component B must be implemented
2	When a new poll is created, the selected images must be centered for best display on Component A	2	When a poll is loaded from Component B, Component A should apply alignments
3	When a user tries to vote on a previously voted on poll, Component A must not allow the same.	1	The API call made to Component B must return a parameter signifying the user's vote status
4	When there are no polls in the feed (Component A), there needs to be a message displaying "No Polls to Display"	3	Check the return parameters of the API call made to Component B to load polls in feed. If there are no polls to display, Component A will display the required message



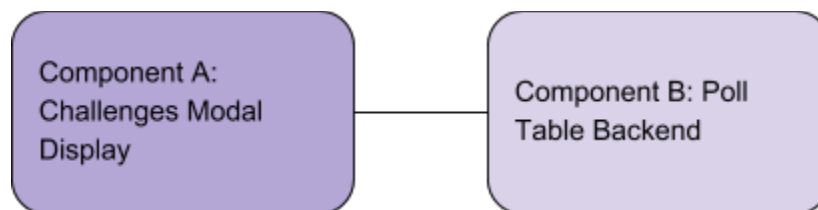
Defect No.	Description	Severity	How To Correct
1	Component A theme options should include all available themes on the backend, and selecting the default placeholder should not be possible	2	Make the "Select a Theme" option not selectable, and get all available themes from Component B to populate the options using an API call.



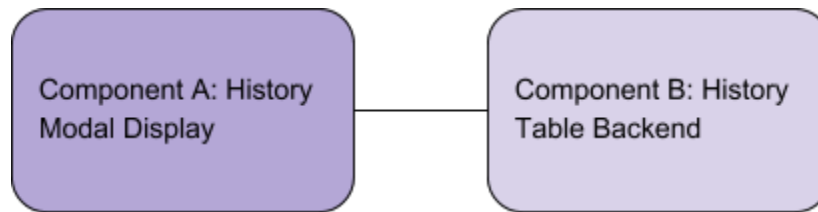
No defects found



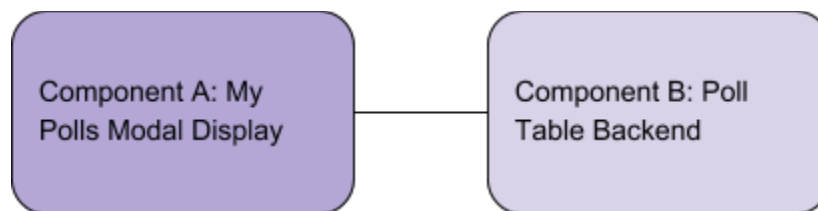
Defect No.	Description	Severity	How To Correct
1	When Component A is loaded and the user selects to search for friends, it should not send requests to Component B if the length is 0.	2	Before the request is sent by Component A, the code should check the length of the request before sending it to Component B to prevent congestion and provide better error handling.



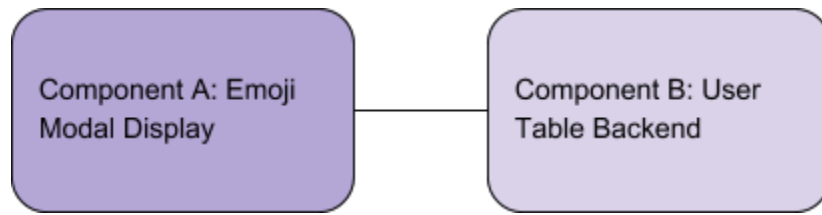
Defect No.	Description	Severity	How To Correct
1	In received challenges, Component A should provide the user the option to upload an image to complete the request	1	Component A image upload option is provided and works when multiple requests exist in order to make sure the request sent to Component B is correct.
2	In Component A, there should be a display of all accepted polls in order to start them when it is convenient	2	Component A should have a tab that displays all accepted polls received from a call to Component B, and then handles starting the poll when the user starts the poll through an additional call to Component B



Defect No.	Description	Severity	How To Correct
1	When Component A is loaded, the list of polls in the history should display results for all polls returned from Component B to show the user which side they voted for.	3	When receiving the history polls from Component B, use the voting information to generate the correct overlay for each poll in the array before making them visible.
2	When Component A is loaded, it should display the polls with the correct amount of users involved and their display names	2	When receiving the history polls from Component B, check the type of poll and adjust the UI in Component A to display the correct amount of users.

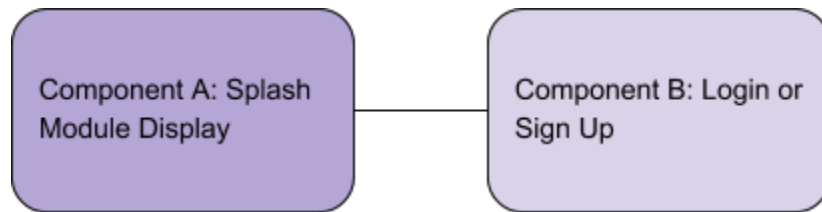


Defect No.	Description	Severity	How To Correct
1	When Component A is loaded, the list of polls in My Polls should display results for all polls returned from Component B to show the user which side they voted for.	3	When receiving the My Polls polls from Component B, use the voting information to generate the correct overlay for each poll in the array before making them visible.
2	When Component A is loaded, it should display the polls with the correct amount of users involved and their display names	2	When receiving the My Polls, polls from Component B, check the type of poll and adjust the UI in Component A to display the correct amount of users.

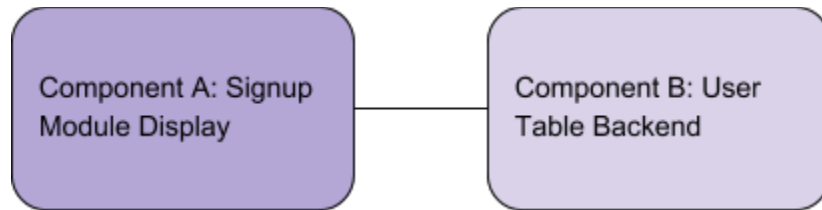


No defects found

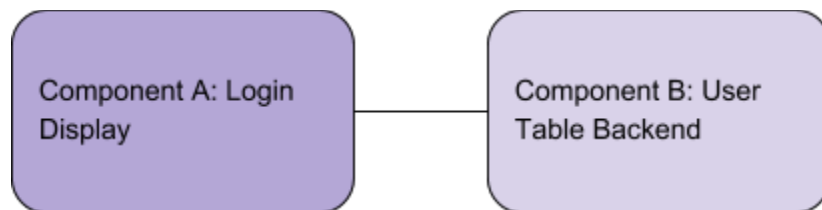
## Regression Testing



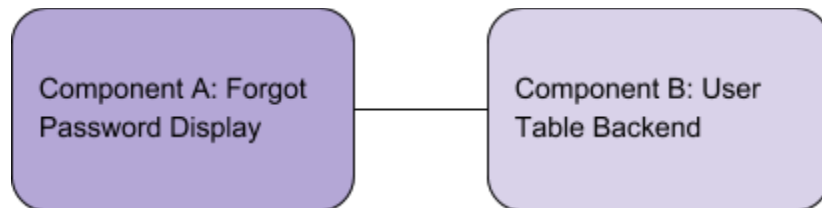
No defects found



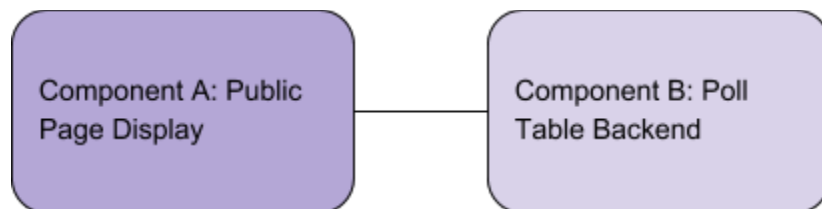
No defects found



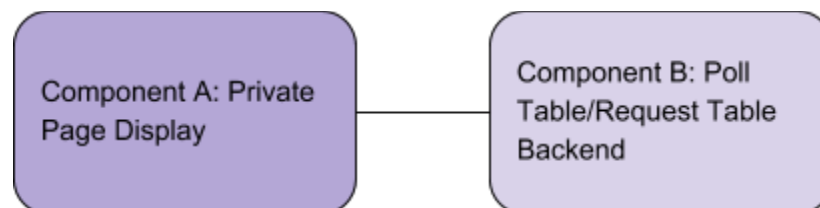
No defects found



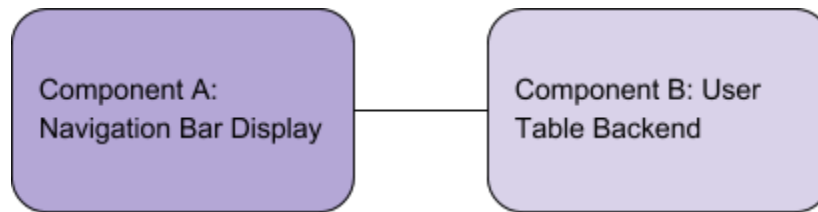
No defects found



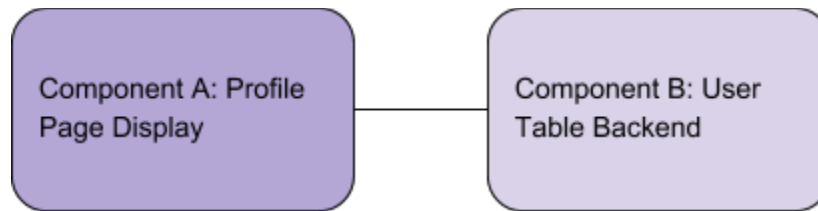
Defect No.	Description	Severity	How To Correct
1	After returning the polls according to the polls of the selected themes Component A still did not reflect the changes made	2	The request results that retrieved the polls of a certain theme from Component B was updated in Component A
2	After returning the polls according to the polls of the selected states Component A still did not reflect the changes made	2	The request results that retrieved the polls of a certain state from Component B was updated in Component A
3	After Component B returned true if a filter had been selected Component A still did not reflect the boolean returned	3	The boolean that was retrieved from Component B's API call was updated in Component A
4	After Component B returned the list of appropriately sorted polls, Component A did not reflect the sorted list	2	The displaying of the sorted list was updated in Component A so that the appropriately sorted list was shown
5	After Component B returns a list of the searched for polls Component A did not show the appropriate searched polls	2	Component A was updated so that it would only display the polls given to it by Component B
6	After Component B returns if a search has been selected Component B did not display the appropriate clear search button	2	Component A was updated so that given a search has been conducted the Clear Search button was displayed
7	When Component B noted that an option had been voted on, Component A did not reflect appropriately	1	If an option was selected, as determined by the return value of Component B, Component A was updated to display which value was voted on.
8	When Component B noted that an option had been voted on, Component A did not appropriately reflect the actual scores	1	When an option was selected and Component B sent back the option that had been voted on, Component A was updated to display the appropriate percentage



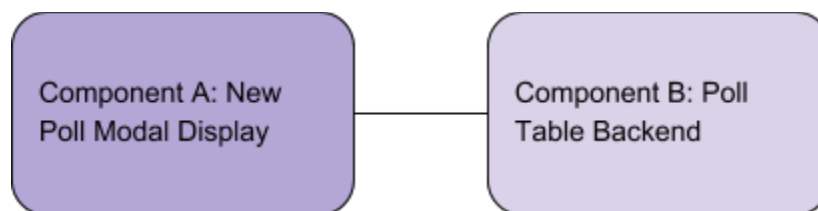
Defect No.	Description	Severity	How To Correct
1	After returning the polls according to the polls of the selected themes Component A still did not reflect the changes made	2	The request results that retrieved the polls of a certain theme from Component B was updated in Component A
2	After returning the polls according to the polls of the selected states Component A still did not reflect the changes made	2	The request results that retrieved the polls of a certain state from Component B was updated in Component A
3	After Component B returned true if a filter had been selected Component A still did not reflect the boolean returned	3	The boolean that was retrieved from Component B's API call was updated in Component A
4	After Component B returned the list of appropriately sorted polls, Component A did not reflect the sorted list	2	The displaying of the sorted list was updated in Component A so that the appropriately sorted list was shown
5	After Component B returns a list of the searched for polls Component A did not show the appropriate searched polls	2	Component A was updated so that it would only display the polls given to it by Component B
6	After Component B returns if a search has been selected Component B did not display the appropriate clear search button	2	Component A was updated so that given a search has been conducted the Clear Search button was displayed
7	When Component B noted that an option had been voted on, Component A did not reflect appropriately	1	If an option was selected, as determined by the return value of Component B, Component A was updated to display which value was voted on.
8	When Component B noted that an option had been voted on, Component A did not appropriately reflect the actual scores	1	When an option was selected and Component B sent back the option that had been voted on, Component A was updated to display the appropriate percentage



No defects found



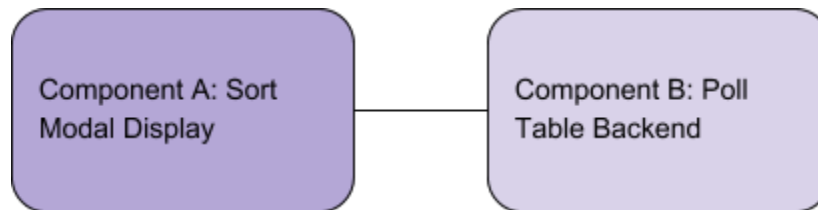
Defect No.	Description	Severity	How To Correct
1	After fixing the win rate error from Component B, Component A still did not reflect the values loaded.	2	The win rate retrieved from Component B via the API call was updated to be displayed on Component A onload.
2	After fixing the tiki tally error from Component B, Component A still did not reflect the values loaded.	2	The tiki tally retrieved from Component B via the API call was updated to be displayed on Component A onload.
3	After fixing the polls created error from Component B, Component A still did not reflect the values loaded.	2	The polls created value retrieved from Component B via the API call was updated to be displayed on Component A onload.



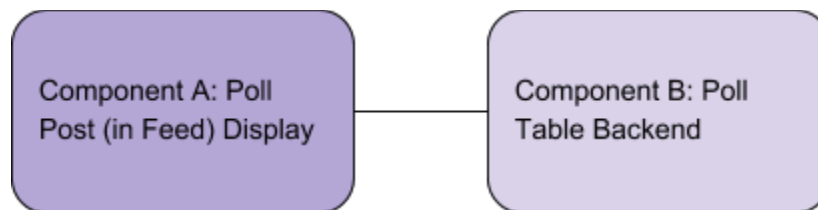
Defect No.	Description	Severity	How To Correct
1	After making the modal in Component A dynamic to change based on personal or challenge poll, the request sent to Component	3	The values checked to make the UI dynamic in Component A were also used to change which call is made to Component B.



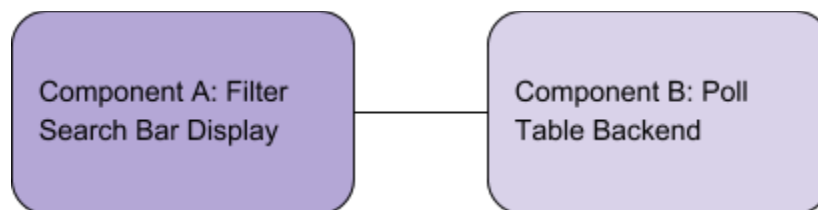
	B was still not correct		
2	After making all available themes from the backend options in Component A, selectable options were still causing issues.	2	The UI was designed to prevent the user from choosing default values that should not be selectable.



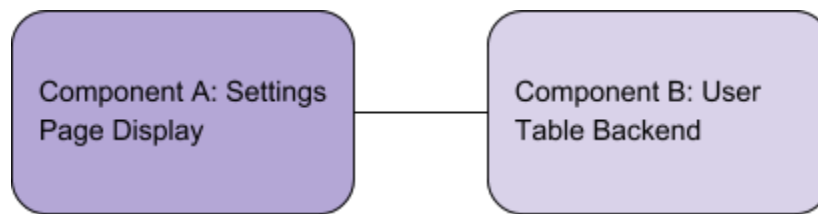
No defects found



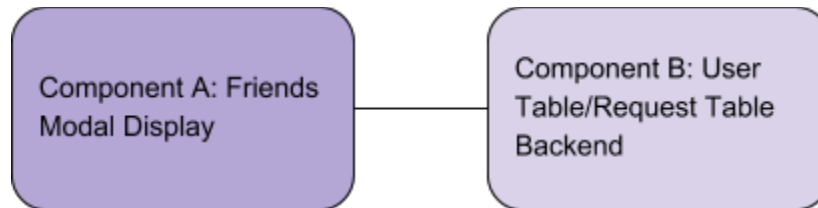
Defect No.	Description	Severity	How To Correct
1	After returning the vote percentages from Component B, Component A did not change.	1	The poll percentages retrieved from Component B were updated in Component A onload
2	The voted value returned from Component B did not change Component A appropriately	1	The voted value was used to set permission to vote in Component A



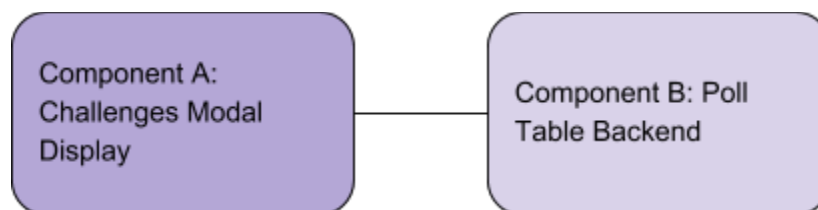
Defect No.	Description	Severity	How To Correct
1	The API call made to populate themes as specified in Component B was not reflected in Component A	2	The request results from the API call to Component B was made to be displayed in Component A



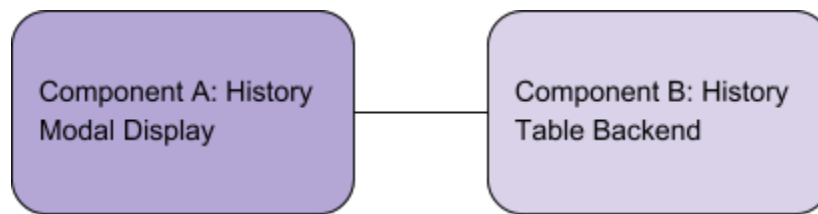
No defects found



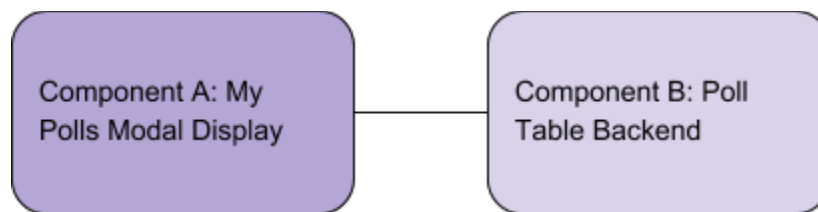
Defect No.	Description	Severity	How To Correct
1	When Component A was adjusted so that a request with an empty string would not be sent to Component B, and the User backspaces to a length of 0, Component A was still showing results of the previous search	2	Component A was updated in order to display nothing after the string to be searched was empty



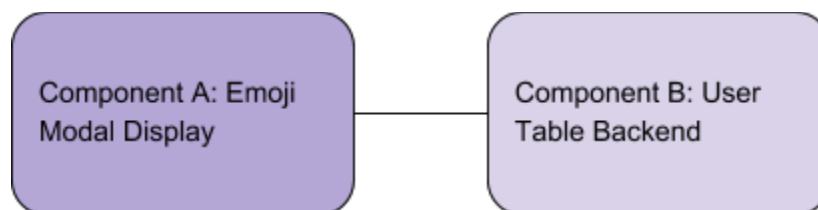
Defect No.	Description	Severity	How To Correct
1	After Component A was modified to provide the user the option to upload an image to complete the request, the request was still not sent to be accepted	1	Once the image is provided in Component A, the request should automatically be sent to Component B to mark it as needing to be accepted by the sender.
2	After Component A was adjusted to display all accepted polls, they were still not able to be started from Component A	2	Once the user clicks the start button, Component A sends the request to Component B in order to officially begin the poll.



Defect No.	Description	Severity	How To Correct
1	The resulting votes from the API call were not visible in the History Modal Component A)	3	The visibility overlay in Component A was made to display the Component B request results
2	After fixing the user display error for the polls in the history modal, Component A does not display the correct usernames.	2	In order to display the correct usernames, make additional calls to Component B to get the information before making the poll visible in Component A.



Defect No.	Description	Severity	How To Correct
1	The resulting votes from the API call were not visible in the My Polls Modal (Component A)	3	The visibility overlay in Component A was made to display the Component B request results
2	After fixing the user display error for the polls in the my polls modal, Component A does not display the correct usernames.	2	In order to display the correct usernames, make additional calls to Component B to get the information before making the poll visible in Component A.



No defects found

## Update Product Backlog (5 points)

Backlog Id	Functional Requirement	Hours	Status
1	As a user, I would like to be presented with a splash page	5	Completed in Sprint 1
2	As a user, I would like to see a brief description of the website on the splash page	5	Completed in Sprint 1
3	As a user, I would like to be able to create an account on the sign-up page	5	Completed in Sprint 1
4	As a user, I would like to login with an existing account on the login page	5	Completed in Sprint 1
5	As a user, I would like to be able to change my password from the settings page	5	Completed in Sprint 1
6	As a user, I would like to be able to change my display name from the settings page	5	Completed in Sprint 1
7	As a user, I would like to be able to logout of my account from any page	5	Completed in Sprint 1
8	As a user, I would like to find friends via searching usernames	5	Completed in Sprint 2
9	As a user, I would like to send a friend request	5	Completed in Sprint 2
10	As a user, I would like to accept a friend request	5	Completed in Sprint 2
11	As a user, I would like to reject a friend request	5	Completed in Sprint 2
12	As a user, I would like to be able to view a list of my current friends	5	Completed in Sprint 2
13	As a user, I would like to see a list of all my polls	5	Completed in Sprint 2

14	As a user, I would like to see all the polls I voted on	5	Completed in Sprint 2
15	As a user, I would like to see the percentage of polls I have won	5	Completed in Sprint 2
16	As a user, I would like to see the percentage of polls I have lost	5	Completed in Sprint 2
17	As a user, I would like to create a challenge poll	5	Completed in Sprint 2
18	As a user, I would like to send an invite to a friend for a challenge poll.	5	Completed in Sprint 2
19	As a user, I would like to create a personal poll	5	Completed in Sprint 2
20	As a user, I would like to be able to upload image(s) into the poll	5	Completed in Sprint 1
21	As a user, I would like to be able to select image options for the poll through other means, such as movie posters, album artwork, and GIFs	5	Completed in Sprint 1
22	As a user, I would like to confirm that the image has been uploaded before I submit.	5	Completed in Sprint 1
23	As a user, I would like to be able to set the title of the poll	5	Completed in Sprint 1
24	As a user, I would like to be able to add a theme to a poll	5	Completed in Sprint 1
25	As a user, I would like to be able to set the privacy of the poll	5	Completed in Sprint 1
26	As a user, I would like to be able to set a time limit or expiration for my poll	5	Completed in Sprint 1
27	As a user, I would like to start the poll once the invited friend has uploaded their image	5	Completed in Sprint 2
28	As a user, I would like to accept a friend poll	5	Completed in Sprint 2

29	As a user, I would like to reject a friend poll	5	Completed in Sprint 2
30	As a user, I would like to upload a photo to a friend poll	5	Completed in Sprint 1
31	As a user, I would like to approve the poll to be launched	5	Completed in Sprint 1
32	As a user, I would like to accept a challenge poll	5	Completed in Sprint 2
33	As a user, I would like to reject a challenge poll	5	Completed in Sprint 2
34	As a user, I would like to upload a photo to a challenge poll	5	Completed in Sprint 1
35	As a user, I would like to approve the poll to be launched	5	Completed in Sprint 1
36	As a user, I would like to see public polls on the public page	5	Completed in Sprint 2
37	As a user, I would like to see private polls from my friends on the my private page	5	Completed in Sprint 2
38	As a user, I would like to sort polls by expiration date on both public and private pages	5	Completed in Sprint 2
39	As a user, I would like to to sort polls from oldest to newest and newest to oldest on both public and private pages	5	Completed in Sprint 2
40	As a user, I would like to filter polls by searching for multiple themes.	5	Completed in Sprint 2
41	As a user, I would like to filter polls by themes on both public and private pages	5	Completed in Sprint 1
42	As a user, I would like to vote for an option on a poll	5	Completed in Sprint 2
43	As a user, I would like to see the current results of the poll after a vote is submitted	5	Completed in Sprint 2

44	As a user, I would like to see notifications of my complete polls	5	Cancelled due to lack of time
45	As a user I would like to access the public, private and personal pages from the navigation bar	5	Completed in Sprint 1
46	As a user, I would like to navigate to the tournament page	5	Completed in Sprint 1
47	As a user, I would like to create a tournament	5	Cancelled due to lack of time
48	As a user, I would like to set a theme and title for my tournament	5	Cancelled due to lack of time
49	As a user, I would like to start my tournament	5	Cancelled due to lack of time
50	As a user, I would like to select a tournament to join	5	Cancelled due to lack of time
51	As a user, I would like to upload or select a image to be used during the tournament	5	Cancelled due to lack of time
52	As a user, I would like to see the my competitors in the waitroom prior to the start of the tournament	5	Cancelled due to lack of time
53	As a user, I would like to see a list of active tournaments	5	Cancelled due to lack of time
54	As a user, I would like to see the progress and current state of a selected active tournament	5	Cancelled due to lack of time
55	As a user, I would like to vote in each bracket	5	Cancelled due to lack of time
56	As a user, I would like to see the score of the poll, after i have voted	5	Completed in Sprint 2
57	As a user, I would like to see the winning image at the end of each round.	5	Cancelled due to lack of time