# Team #15

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# Milestone 1 - Planning Phase

## Risk Analysis

Risk: Scheduling conflicts within our team
Description: Our schedule is quite different. We do not have so much free time in common during workdays
Severity: High
Resolution: We will try to have short stand-up meetings on class days. And we'll have late night meetings for the planning phase. After the planning phase, we will divide our groups into pairs who have similar schedule so that they can meet regularly. Finally, we'll have group meetings resolving major issues during the week(late night) or on weekends.
Status: resolved

Risk: Not familiar with app development
Description: Compare to full-time app developers, we are just students with no industry and little Android development experience. Consequently, we don't have much experience with different technologies.
Severity: Medium

Resolution: We will try our best to develop the project. However, to avoid situations that involve developing something out of our capability, we will constantly analyse team risks for our tasks. We will do pair programming and help teach each other on APIs and etc if a teammate is experienced with it. If no one is experienced, the team will research the technology. Additionally, we will use conservative velocity calculations and under-pack iterations to account for our inexperience and still have realistic goals. Also, when in doubt, we'll consult with TAs or Bill to see if our task goal is achievable.
Status: In Progress

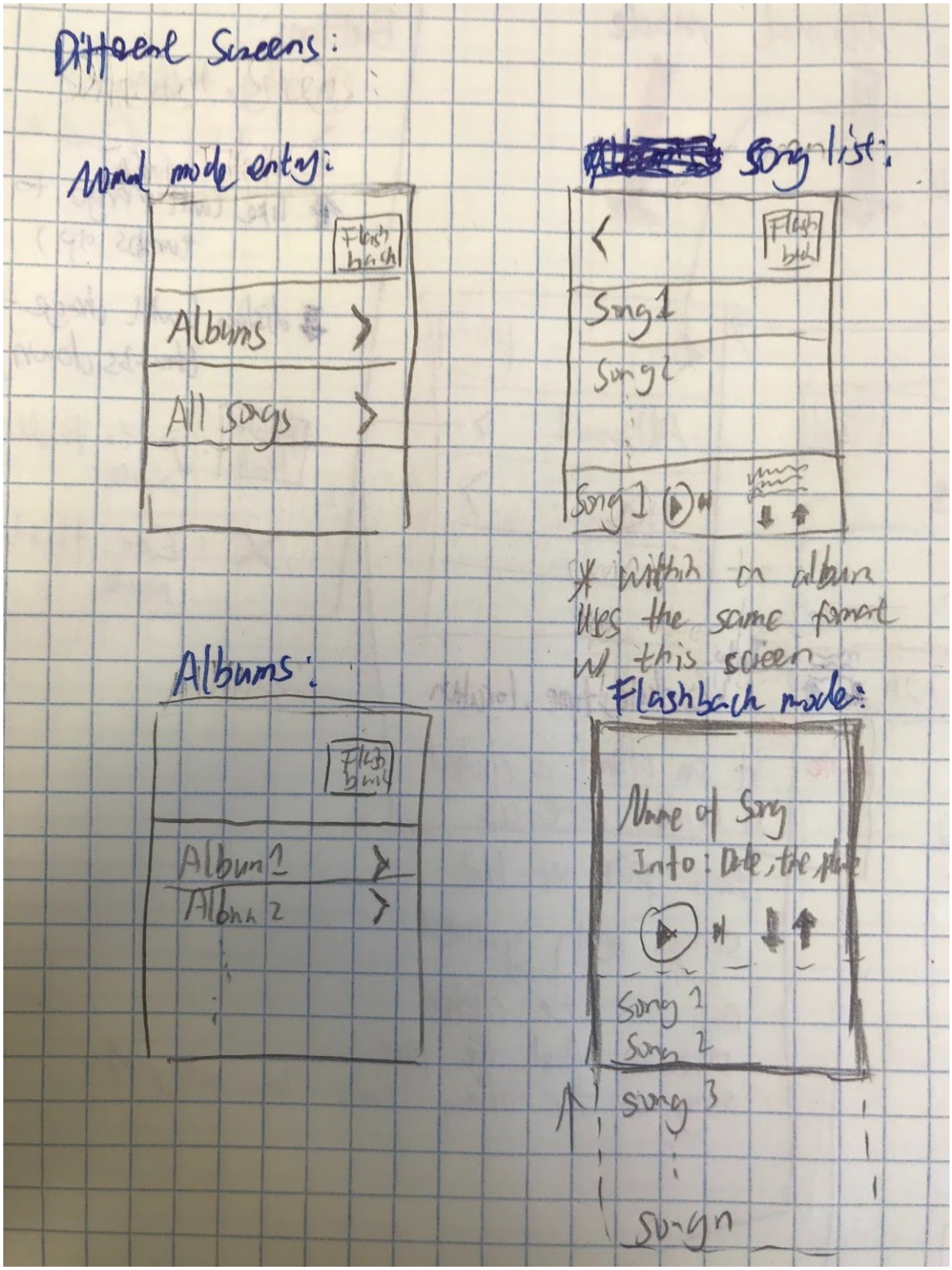
Risk: Time Management due to increasing workloads from other classes/work/clubs
Description: We all have many different classes along with other extracurriculars that take up time off of class. And with the increasing workload from midterm week and onwards, it will be hard for teammates to find time to work on the project, or keep up with other coursework. If teammates fall behind, it would take some time to bring them to the current project status.
Severity: High
Resolution: Each teammate will be expected to keep up and get ahead with all of their work. Also, each team member will hold the others accountable for the work assigned to them and use the burn-down chart for reference to monitor productivity. Finally, just as in the previous risk, being conservative with velocity and iterations will help us obtain realistic goals to tackle the project.
Status: Resolved

Risk: Misunderstanding the requirement of the project
Description: We might misunderstand the project requirements, which could lead us going to wrong directions during development. Since the description of the project is minimal, we may misinterpret the product that the customer is asking for.
Severity: Low
Resolution: We will look on piazza and keep an updated list of the clarifications of the customer. We will also ask questions about our assumptions on piazza for the customer to clarify.
Status: Resolved

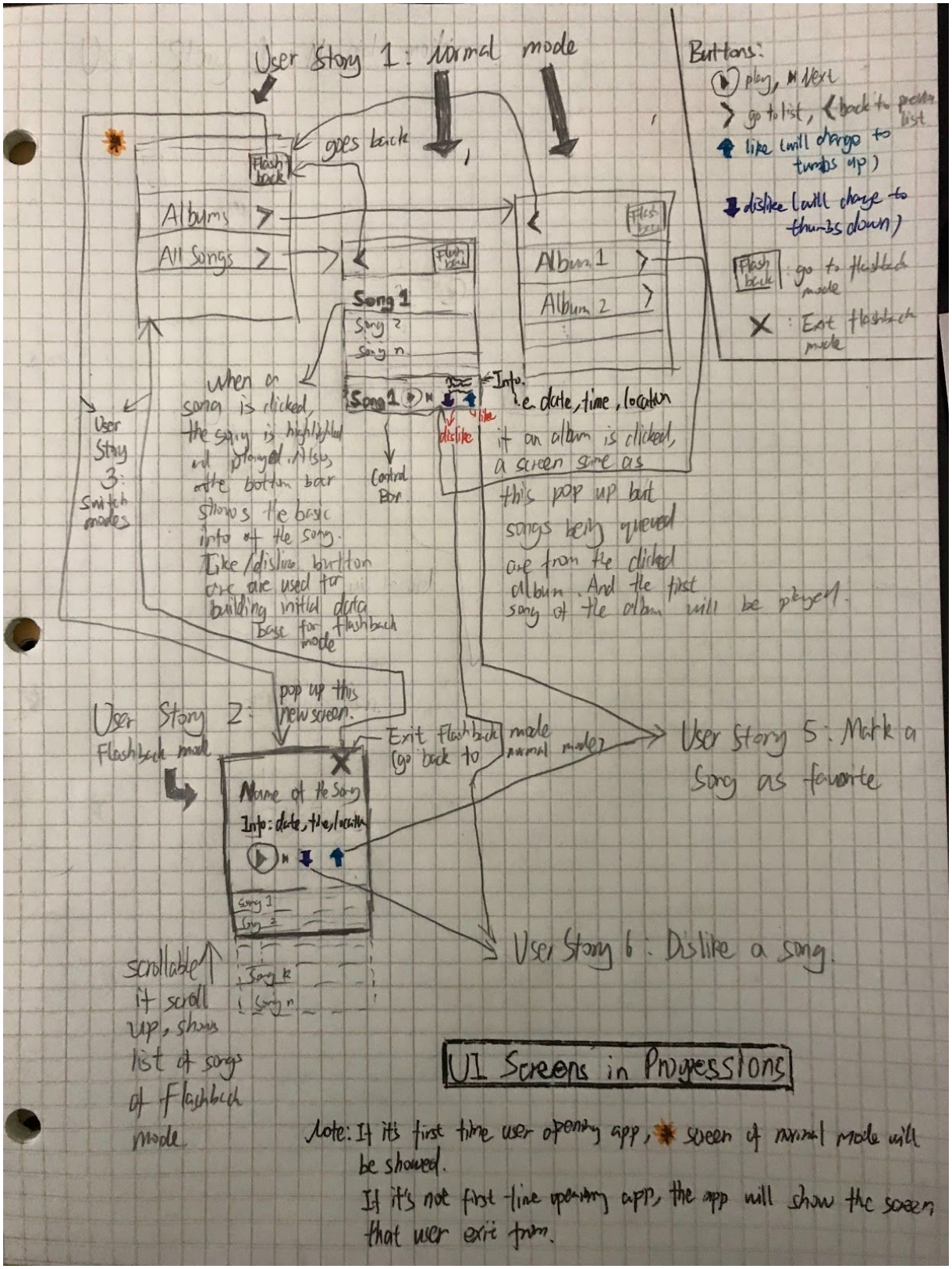
Velocity: 0.5
Justification with calculation: Based on our two meetings, we reasoned that our velocity should start at 0.5. Since the book suggests that we should start at 0.7, but we are also students with conflicting schedules and less experience than professionals. Also to account for the risks, we chose a very low velocity. Furthermore, a conservative velocity will help us obtain realistic goals for the first iteration.

**UI Progressions:**

1. **Different Screens Types**



**2. UI screens in progressions**



## Scenario-Based System Tests

Test 1:

1. Start the app by tapping the app icon. Last time the mode was on Flashback. The app should start in Flashback mode. You should see 3 buttons. At the top right there should be a toggle button for normal mode. If the song was previously playing before the app was closed, the song should be picked up where it left off. Otherwise, it will play a new song based on location and time. (User Story 1)
2. Press the toggle button to change from Flashback mode to Normal mode. If a song is playing, the song should be interrupted. There should be no songs playing. The screen should change to where it will show two buttons, songs or albums. (User Story 3)
3. Click the albums button. The screen should change and now show the list of albums. Now click on an album. Now the screen should change to where we see the list of songs for the album. There should also be a bottom toolbar used to show which song is currently playing along with the favorite and dislike button. (User Story 1)
4. Click on a song. The song should now be showing on the bottom toolbar. The song should start playing. The date, time, and location where the song was last played should also be shown. The screen shouldn't change, and stay at where the song was clicked to play. (User story 1, 4)
5. Press the "Go back" button. The screen should now change back to the Album page, as the original screen was showing the songs specific to the album. The song should still be playing. (User story 1)
6. Click the pause button at the bottom toolbar. The song should now be paused. The screen should still be the same at the albums page. (User story 1)
7. Click the favorite button. The favorite button should now be highlighted, and the screen should be the same. Click the play button, the song should now resume playing. (User story 5)
8. Click the back button again. The screen should now switch back to the homepage with the two buttons, songs and albums. The song should still be playing. (User story 1)
9. Now click the songs button. The screen should show a list of all available songs. Click the dislike button on the bottom toolbar. The favorite button for the song at the bottom toolbar should be unhighlighted and the dislike button highlighted. The song should now skip and play the next song in the album list. (User story 6)
10. Now press the toggle button to switch to Flashback mode on the top right. The screen should now switch and the current song should be interrupted and play a new song from the flashback playlist. The screen should also show the title for the song, and the date/time and location for when the song was last played. (User story 3, 4)

11. Click the dislike button on the bottom toolbar. The current song is favorited. The favorite button for the song at the bottom toolbar should be unhighlighted and the dislike button highlighted. The song should now skip and play the next song in the Flashback list. (User story 6)
12. Now scroll down. It should show the current playlist for flashback mode, which shows previous songs that have been played and the next songs that will be played based on the location and time for the user. (User Story 2)
13. Now move to a new, different location. The current song should still be playing, but the playlist for the flashback mode should change to a new playlist based on the new location. However, it should finish the current song that the last playlist was on before switching to the updated list. (User Story 2, 4)
14. While the song is being played, the time moved from 4:59 to 5:00, switching the noon block to the evening block. The current song should still be playing, but the playlist should now switch to a new playlist based on the current time/location. Once the current song finishes playing, a new song from the new playlist should start playing. (User Story 2, 4)
15. Press the button to switch back to normal mode. The screen should change to the home page with the two buttons to choose to view songs or albums. The current song also playing in Flashback mode should be interrupted. (User story 3).
16. Minimize the app. The current song should still be playing. Then reopen the app. The screen should still be in Flashback mode showing the information of the song and the playlist if the user swipes down the screen. (User Story 2)
17. Force Quit the app. The app should now be closed. The song should stop playing at once. (User Story 2)

<u>Test 2:</u>

1. Start the app for the first time by tapping the app icon. The app should start in normal mode. You should see 3 buttons. At the top right there should be a Flashback mode button, then center on the screen should be an Albums button and a Songs button (User Story 1)
2. Click the Songs button. The screen should change to a list of all available tracks with a bar at the bottom that has space for a song that will be played with a play/pause button, and thumbs up/down buttons. There should also be an empty information box above the thumb buttons. The Flashback mode button should still be visible and there should now be a back button at the top left of the screen. (User Stories 1,5,6)
3. Click play on the first song in the list at 2:30 PM on Monday Feb. 22nd 2018 while standing in Price Center. The song should now be playing through the audio output. The screen should stay the same, and the song name should appear on the bar at the bottom.

The buttons on the bottom bar should all be clickable now, and the information bar should still be blank. (User Stories 1,5,6).

4. Press the pause button. The button should change to look like a play button and the audio should stop. (User Story 1).
5. Resume playing by clicking the play button. The song should continue playing where it left off. (User Story 1)
6. Click the lower audio button on the phone. The song should get quieter. (User Story 1)
7. Finish listening to the song. Audio should stop and the bottom bar should have no song name or information. (User Story 1)
8. Click on the third song on the list at 2:34 PM on Monday Feb. 22nd 2018 while standing in Price Center. The song name should now be on the bar at the bottom and the song should be playing through the audio output. (User Story 1)
9. Hit the thumbs up button on the screen. The button should turn green and should now be favorited. (User Story 5)
10. Finish listening to the song. Audio should stop and the bottom bar should have no song name or information. (User Story 1)
11. Click the first song again. The song should start playing and the bottom bar should have the name of the song and now there should be information above the thumb buttons reading 2:30, 2/22/18, Price Center. (User Stories 1, 4)
12. Click the back button at the top left of the screen. The screen should now look exactly how it looked when the app was started. (User Story 1)
13. Click the flashback mode button. The screen should switch to the flashback mode screen. Song 3 should start playing immediately with the name on the top of the screen and the information: 2:34, 2/22/18, Price Center right below it. There should be a pause icon right below that information and thumbs up/down buttons to the right of that. The thumbs up button should be green to indicate its favorited status. Below those you should see a list containing two songs. The first is Song 3 and the second is Song 1. (User Stories 1,2,3,4,5,6)
14. Click the thumbs down button. Song 3 should immediately stop playing and song 1 should start up. The information should change to display song 1's name and 2:30, 2/22/18, Price Center. The list at the bottom should change so that song 1 is highlighted. (User Story 2, 4, 5, 6)
15. Hit the home button on the phone. The app should minimize and the music should continue playing. (User Story 2)
16. Bring the app back to the foreground of the phone. The screen should look exactly the same as in step 14. (User Story 2)
17. Hit the normal mode button. Song 1 should immediately stop playing and the screen should now be showing a flashback mode button, "albums" and "tracks". (User story 1,2,3)

18. Quit the app. The app should now be closed.

Task 3:

1. Start the app for the first time by tapping the app icon. The app should start in normal mode. You should see 3 buttons. At the top right there should be a Flashback mode button, then center on the screen should be an Albums button and a Songs button (User Story 1)
2. Click the flashback mode. There shouldn't be any songs playing as there weren't any songs played on the app before. The screen should show an empty playlist and no song information. It should still show the toggle button on the top right corner to switch to normal mode. (User Story 2, 3)
3. Click the normal mode button. The screen should now show the two main buttons, songs and albums. Click on the songs button. The screen should now show the list of available songs, but since this is the first time the app has been opened, it should be empty. (User Story 1)
4. Close the app, and locate the folder to place song files in. Move the songs file from your local device into the Flashback app folder. Reopen the app. The screen should now show the home page with the two buttons, songs and albums. (User Story 1)
5. Click on the songs button, the screen should now show the list of songs recently added with an empty bottom toolbar where the song information will be displayed. (User Story 1)
6. Click on song #1. The song should now start playing, and the information of the song including title, location and time along with the play/pause and favorite and dislike buttons. (User Story 1, 4)
7. Let song #1 finish. Then choose song #2. Song #2 should now start playing when song #1 stops. The information for song #2 should also now be showing on the bottom toolbar along with the play/pause and the favorite and dislike buttons. Let the current song finish. (User Story 1)
8. Now click flashback mode. Song #2 should start playing again, given it is the most recent song played. The location and time frame is the same. The screen should also show the information for the current song on the center of the screen. (User Story 2)
9. Swipe down on the screen to bring up the flashback playlist. There should only be two songs, song #2 and song #1 as they were the only two songs played. The song titles should be shown and the location and the time frame should be the same as your current position. (User Story 2)
10. Walk to a different location than your given location. The current song should still be playing, but the playback list should now be empty given that it is a new location as no songs were played before in the given location. (User story 2)

11. Let the current song finish playing. There shouldn't be any songs playing after that. Walk back to your previous location. The playlist in the screen should now show song #2 and song #1 in order. A song from the playlist should now start playing. (User Story 2)
12. Click the toggle button to switch to normal mode. The current song should now stop playing. The screen should now be the homepage with the two buttons, songs and albums. (User Story 3)
13. Click on the albums button. The screen should now show the list of available albums with a back button on the top left and the flashback toggle button on the top right. There should also be a bottom toolbar for the current song being played. But it will be empty since we have no songs playing. (User Story 1)
14. Click on an album, the screen should now show the list of songs specific to that album, with the back button, toggle button, and the bottom toolbar being unchanged. (User Story 1)
15. Click on a song within the album. The song should now start playing and the bottom toolbar should've been updated with the current song's information along with the play/pause button and the favorite and dislike button. (User Story 1)
16. Let the current song finish. The next song should now start playing after the current song in the album. The bottom toolbar should be updated with the new song's location/time and title information with the buttons staying the same. (User Story 1, 4)
17. Let the rest of the songs in the album finish playing. Once the last song in the album has finished playing, the app should be playing nothing. (User Story 1)
18. Quit the app. The app should now be closed, and the song should now have stopped playing. (User Story 1)
19. Reopen the app. The app should reopen back in normal mode, as it was the last mode the app was in when it closed.

## Planning Poker

| Story C | Story Name | Hand | Assumptions Uncovered |
|---|---|---|---|
| 1 | User selects tracks to play (normal mode) | 3 5 5 5 5 Long(10+) | The finalized UI does not have to be ready to get this feature working. It can just be as rudimentary as possible to view the functionality.<br>However, since this will be the first story, the overhead with getting started will be larger than usual. |
| 1 | User selects tracks to play (normal mode) | **5 5 5 5 5 5** | (None) |

| | | | |
|---|---|---|---|
| 2 | Playing music on Flashback Mode | 5 5 10 10 10 Long (10+) | Location functionality is the most complicated part of this user story. However, the Google location API should facilitate considerably. Still, none of us know how to operate it or exactly how it works, so we should still be cautious in our estimates. Furthermore, breaking ties might prove to be complicated. |
| 2 | Playing music on Flashback Mode | **10 10 10 10 10 10** | (None) |
| 3 | Switching between Flashback and Normal Mode | 3 3 **5 5 5 5** | We are going to design separate UI screens for each possible mode. However, they will already have been created on previous stories; switching is not a lot of code. Yet, there is a lot of detailed testing to be performed for specific situations (switch during song, etc). Additionally, we do not know how to make the app "remember" the state it was before it was shut down. |
| 3 | Switching between Flashback and Normal Mode | **5 5 5 5 5** 3 | (None) |
| 4 | Last Played Information | **3 3 3 3 3 3** | Story is in fact quite simple, but there are a few edge cases to test (end of song vs beginning, etc) |

| | | | |
|---|---|---|---|
| 5 | Mark a song as favorite | 1 3 3 3 5 10 | The “ranking system” used to determine the order of songs in flashback mode will already have been mostly implemented during Story 2; adding a favorite component will just be a small addition. The GUI component of this |
| 5 | Mark a song as favorite | 1 3 3 3 5 5 | Even though they are some edge cases, they can be tested reasonably quickly, and the actual programming component is fast enough to compensate for that anyway |
| 5 | Mark a song as favorite | **3 3 3 3 3** | (none) |
| 6 | Dislike a song | 3 3 3 3 5 5 | There are some tricky edge cases to consider, especially when a song is disliked while playing (song is to be skipped and that means different behaviors in other situations). However, maybe there would already a song queue in either situation and skipping would be as simple as going to the next song in the queue. |
| 6 | Dislike a song | 3 **5 5 5 5** | (none) |

## URL of ZenHub Project:

Insert ZenHub URL here
https://app.zenhub.com/workspace/o/cse-110-winter-2018/cse-110-team-project-team-15-1

Note: Make sure to cover the below 4 items **in** your ZenHub project

- User Stories (including UI wireframes, if not included below)
- Tasks
- Iterations
- Scenario-Based System Tests (We recommend a "Developer Story" at the end of the Iteration to hold these, one Task for System Test.)

## User Interface Progressions/Screens (Wireframes)

Only if you don't store User Stories in ZenHub, insert here, ordered and labelled by User Story