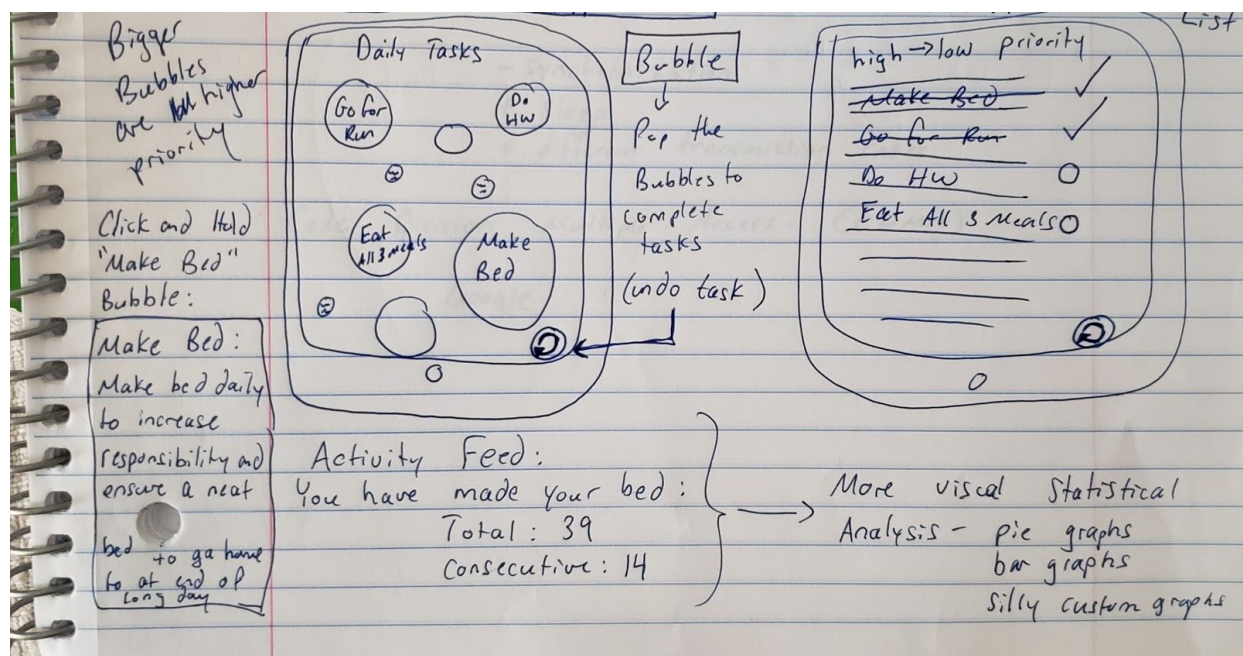Chris Malitsky
Senior Project Contributions
4/22/19

Throughout the course of this semester, my contributions consisted of the initial project idea, UI mockups and design, prototype design and implementation, final app design and core functionality and implementation of the final design, and, just like the rest of the active team members, being an active member contributing insight and attending meetings. This really was a team effort. I think it is very important to note that specific tasks are reflected in the Trello but it really was a team effort.

I will briefly discuss what is not in the trello below. It goes without saying that the active team members (namely Abigail, Caeleb, Martin and myself) were fully involved in this project and wanted everything to work. We were not solely focused on just our tasks - we picked each other up and got picked up by each other.

At the beginning of the semester, our team decided to create an app. At first, we thought it should be some sort of therapy assistance app. After Dr. Lobo expressed an interest in our idea, we discussed with her the ability of an app to benefit as many people as we can. This meant it had to be simple, accessible but also something *interesting*. That evening, while in class, I sketched the initial idea for bubble:

The app has come a long way since then. It has been through many changes and prototypes but, honestly, it wound up being very very close to how I initially imagined it - which is really cool.

At first, Caeleb had the idea to put bubbles in a gridview. This gridview could contain containers which would contain bubble widgets which were created based off of attributes in a bubble class. We rolled with this design for a little while. However, we realized that the design was not optimal in that each grid would be the size of the biggest bubble. This would cause a lot of unused screen space and bubbles not really being able to be moved around by the user. They would be locked into their grid space and, potentially, just moved to other spaces.

I began to research an alternative - draggables. These draggables are exactly what they sound like - draggable widgets. After a lengthy team meeting, we decided to ditch the grid design and opt for a total redesign of the existing code to implement draggable widgets. All the work previously done to create the custom widgets and all the things we wanted it to do had to be redone. The setState functionality of the widgets was not working - we couldn't get the widget to do really anything anymore - could not disappear, could not lock into a new position… So the whole project needed a complete refactor which I managed to accomplish giving us the ability to have bubble widgets do anything we want with a functional setState call. However, the code needed to be refactored a bunch of times along the way to fix all sorts of setState issues and Abigail, Caeleb and myself were all a part of just getting the widgets to work properly. There was a night where Caeleb and I were seriously discussing going back to gridview because of how the refactor was going but we all knew we wanted the app to be more than what the gridview was offering, so we pressed on.

Eventually, draggables were fully implemented. The process involved with the draggables was essentially how we got through every big addition and change we made. The process was: 1. Implement something new, 2. Refactor everything so it works properly. That was the cycle and Abigail, Caeleb and myself were involved in the whole core feature and functionality implementation cycle. Martin was involved in backend implementation. Between Martin, Abigail, Caeleb, and myself, we worked very hard this whole semester to produce something we really wanted to happen. Brian pitched in with the DB effort and did a great job on the animations when a bubble is popped and implementing the ghost bubble.

I do feel it important to note that I do get a sense that I failed a couple of our team members. I was technically team lead - but honestly a team is a sum of its parts and all of those active members led in their own ways. I tried to get the other members involved. I've had personal conversations with them trying to help them get involved. It was a collective effort. We were all leaders and led well and supported each other and I wish a couple of the other members felt the same way as the rest of us.

Trello Stories:
- Draggable Bubbles in Bubble View
- Refigure custom Bubble Widget to allow for SetState()
- Bubble visible/invisible property
- Implement mechanism to swipe between screens (multiple page functionality)
- Theme Creation
- Add Color Option to Add and Edit Screen (for the colors of bubbles)
- User Color Choice

Branches worked on:
chrism_branch
chris_testing
arigo-presentation-4-9
caeleb2
caeleb3
demo_branch
temp
master