CS-639 Building User Interfaces, Fall 2019, Professor Mutlu

Assignments — Week 10 | Design | Mobile Microinteractions

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Step 1. Analyze a microinteraction. In this step, you will find an existing microinteraction used in a mobile app or a wearable device app from any domain (not just calorie tracking). Capture screenshots of the microinteraction and annotate the screenshots to identify and describe triggers, rules, forms of feedback, loops, and modes *(find at least one of each)*. If the microinteraction occurs very briefly and taking screenshots is challenging, you may have to capture a video recording of the microinteraction, from which you can gather still images. (See guides for screen recording on iOS and Android.) Be sure to investigate whether application or global modes change the behavior of the microinteraction. For example, "do not disturb" can affect the behavior of many microinteractions. After your analysis and annotation, discuss the design choices for the microinteraction in a brief paragraph or two. For example, is this an appropriate or effective form of feedback for this microinteraction? If not, what would be more appropriate or more effective? Could the microinteraction fail under different modes? If so, how would you address that?

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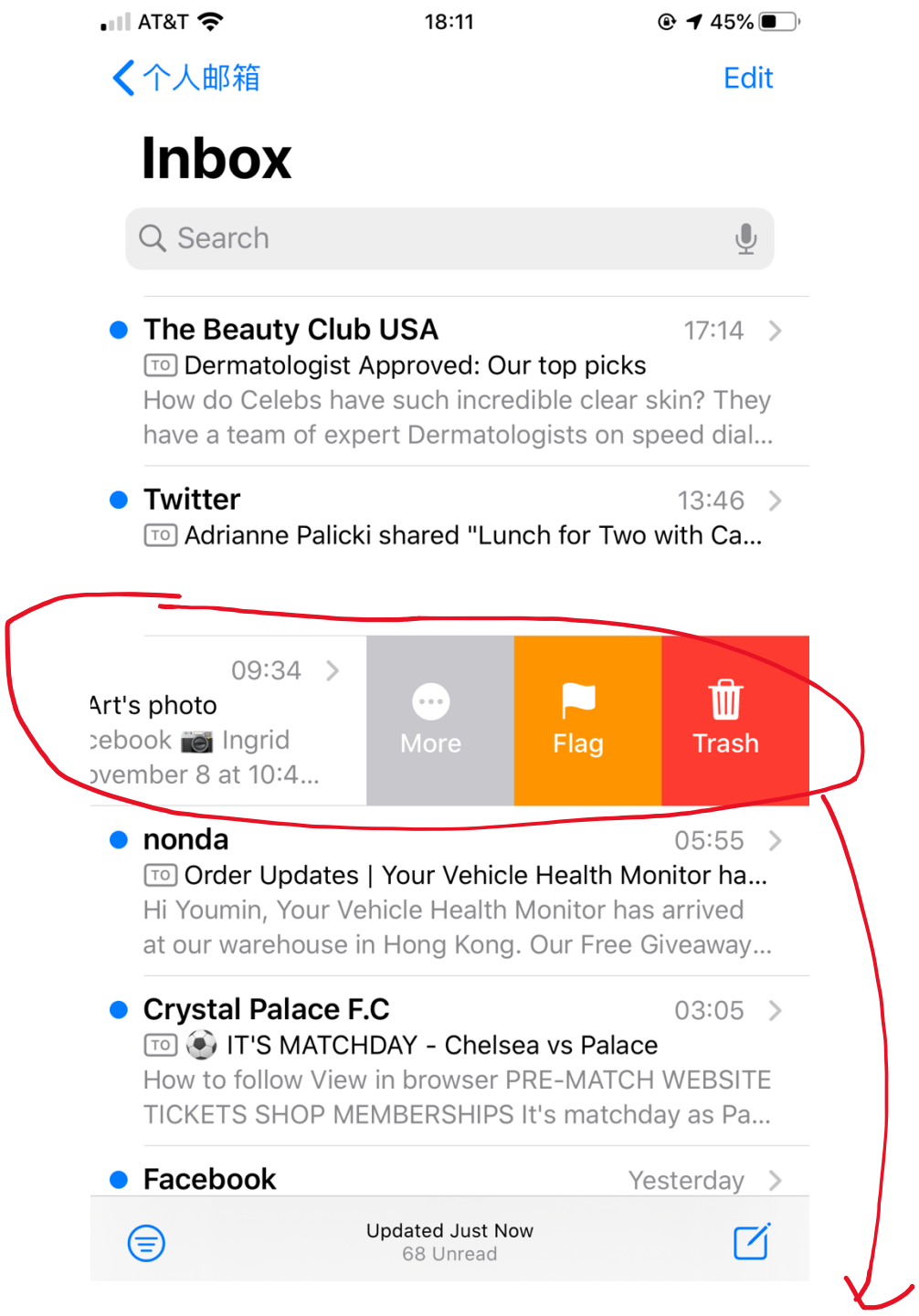
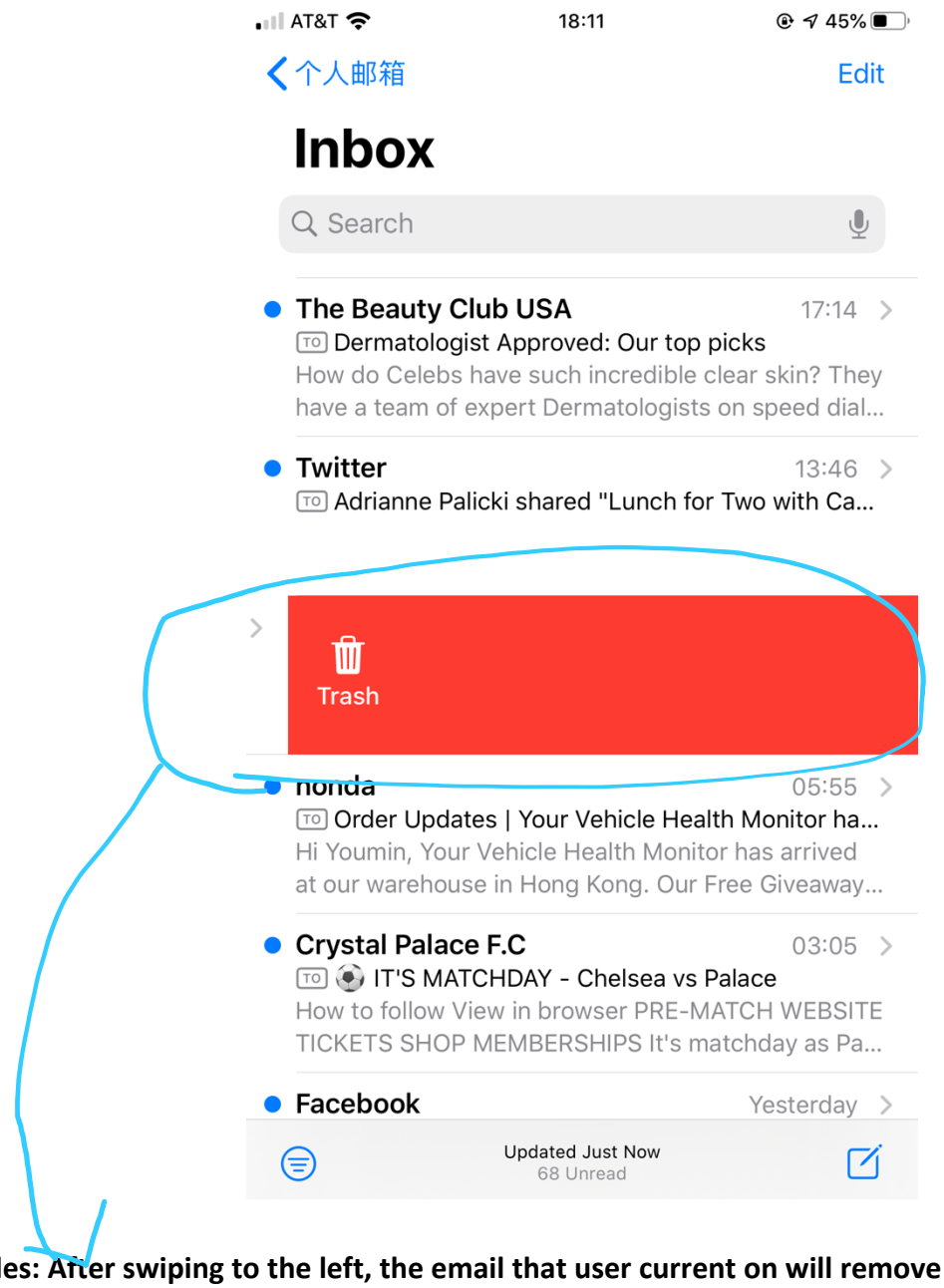
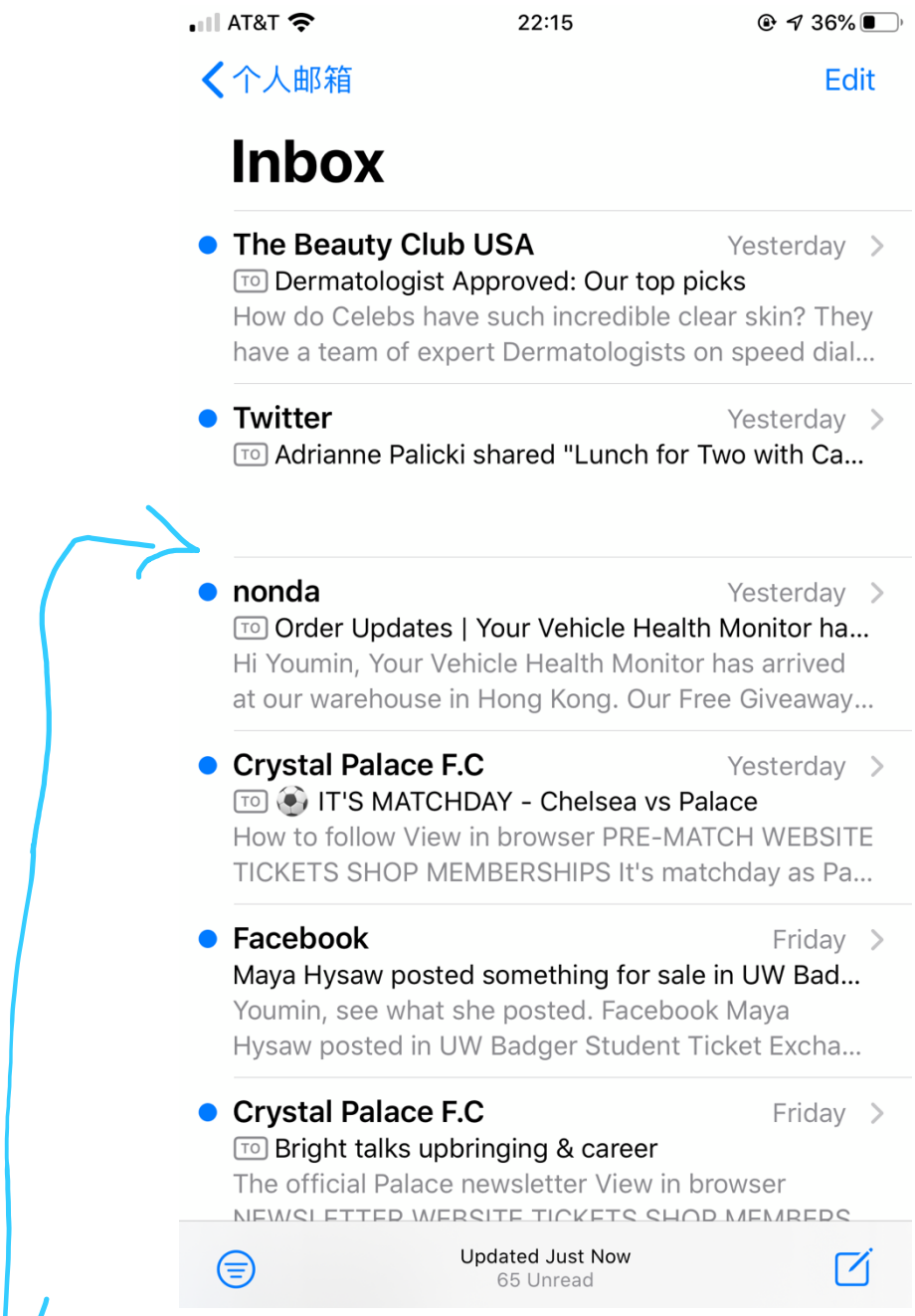
[1] Image source



Trigger: This trigger will be a manual/user-initiated trigger. If there's an email that users want to remove, they can swipe the email to the left.

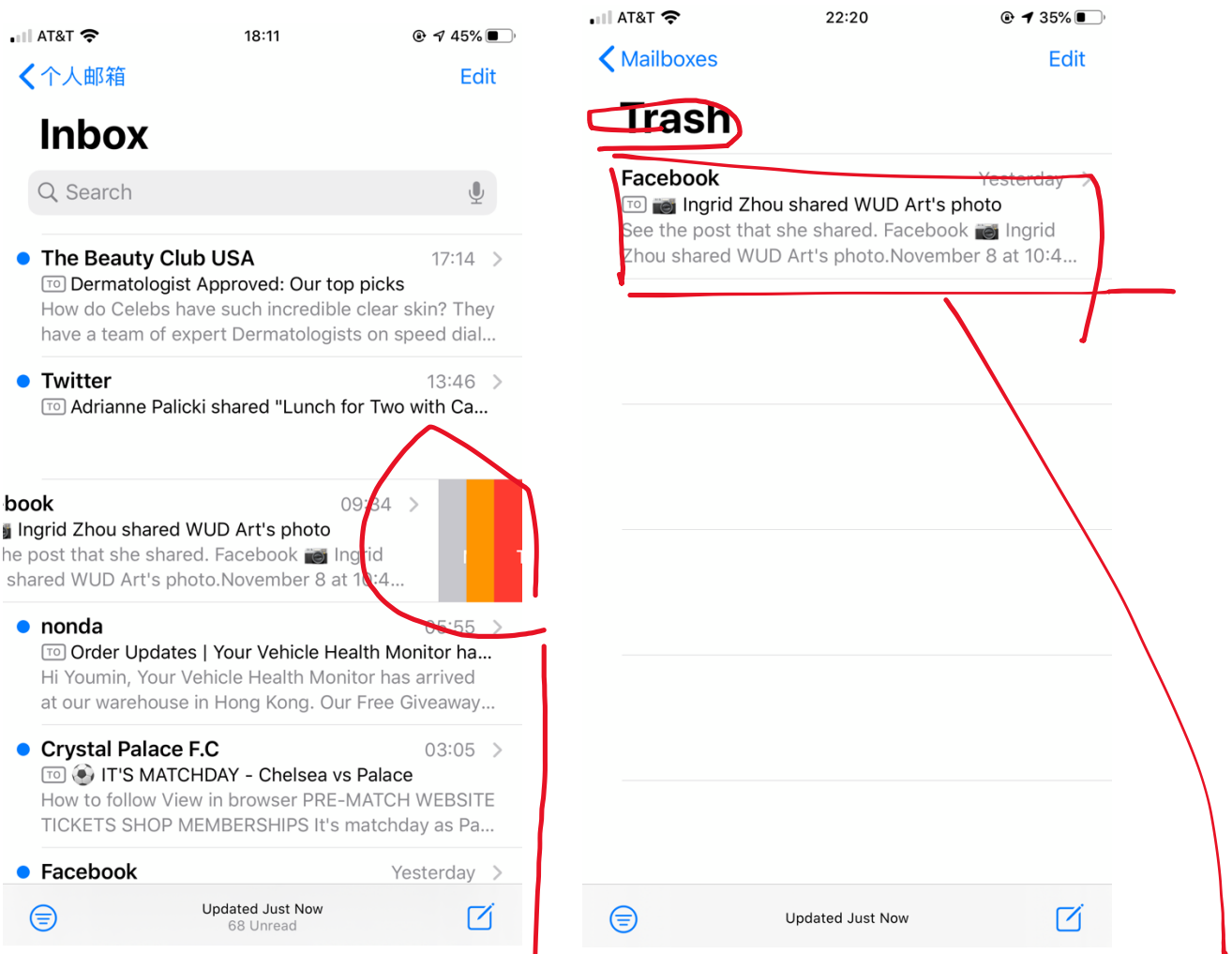


Rules: After swiping to the left, the email that user current on will remove from the inbox and also from the email server.



https://drive.google.com/file/d/1D9XyEw57gvMgQwmvutMsra0d_7-sFEfY/view?usp=sharing

Feedback: After user remove the email, the system will response with a small vibration to notify user that they have successfully remove the email. In addition, the email underneath the current one will be shifting up and the current one will disappear. Please refer to the video for more detail changes on shifting up since it changes in a very quick moment.



Loops & Modes:

Loops: There also loop happening on this micro-interaction. As we know from the trigger, you can remove the message if you swipe to the left. However, if you hold your finger, you could swipe to the right when you decide not to remove the message. As long as you swipe to the left and release your finger, the message will be deleted. This could be a loop for this micro-interaction as showing on the first graph.

Mode: It change the behavior of the system which add the email to the trash folder as showing on the second graph.

<discussion-of-design-choices>

This is a great interaction which has appropriate and effective form of feedback. After user remove the message, it will not only give a response visually by shifting up, but also gives a response physically by sending a vibration. In addition, it also gives the user enough length of the interaction by allowing user swipe back to right to un-remove the message. This microinteraction works best with the people who check the email every hour and have a large number of emails in their inboxes.

However, even it seems very simple and easy to user, it still needs user to learn and is hard to perceive at the first. Since swiping into the different directions have different meaning, the users may need to learn the consequence or function of each swipe. In addition, sometimes if a user has disability and cannot swipe the screen by using their fingers, this will make this microinteraction impossible to use. A great to solve this problem is to add another remove message option which could be down by just clicking.

Step 2. Design a microinteraction. In this step, you will design a new microinteraction in the calorie tracking domain. You may or may not be able to implement your design in this part of the assignment in your React Native 3 deliverable, so you do not have to limit your design to what you can implement. You can choose a tablet computer, a phone, or a watch (or all) as the target platform for your microinteraction, and you are encouraged to fully utilize specific platform capabilities (e.g., Apple Watch crown, multitouch on a mobile/tablet screen). Describe the functioning of your design in a storyboard, using 3-6 scenes. (You can use the NN/g storyboard template.) The storyboard can be pasted below or attached to the final PDF. You will next create hand-drawn or digitally created wireframe(s) of the screen(s) that the user will see while interacting with the microinteraction and annotate them to highlight the trigger, rule, and feedback and to describe loops and modes (*identify at least one of each)*.

See story board on next page

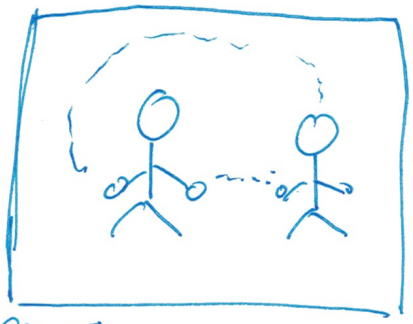
Persona : Tim

User story : Record and update calorie burning while on outdoor running.

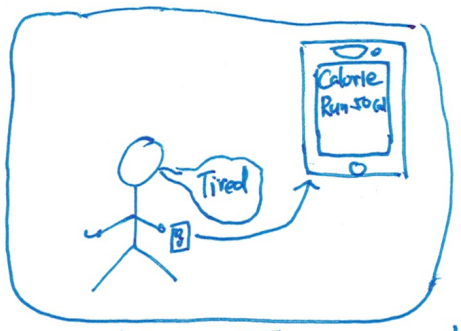
① Tim gets up at 6:00 am everyday

② He would like to do a running every morning

① Tim always look at the calorie tracking app before running

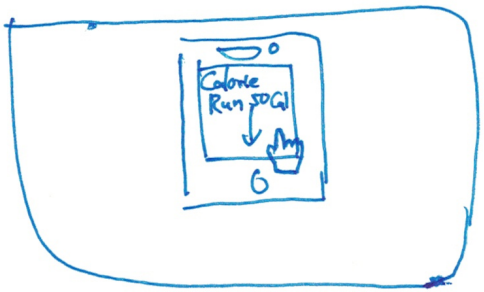


① Tim starts to run for 2 miles around his apartment



① When Tim gets tired, he will pull up his phone and check the calorie burning

② It will refresh after get the data



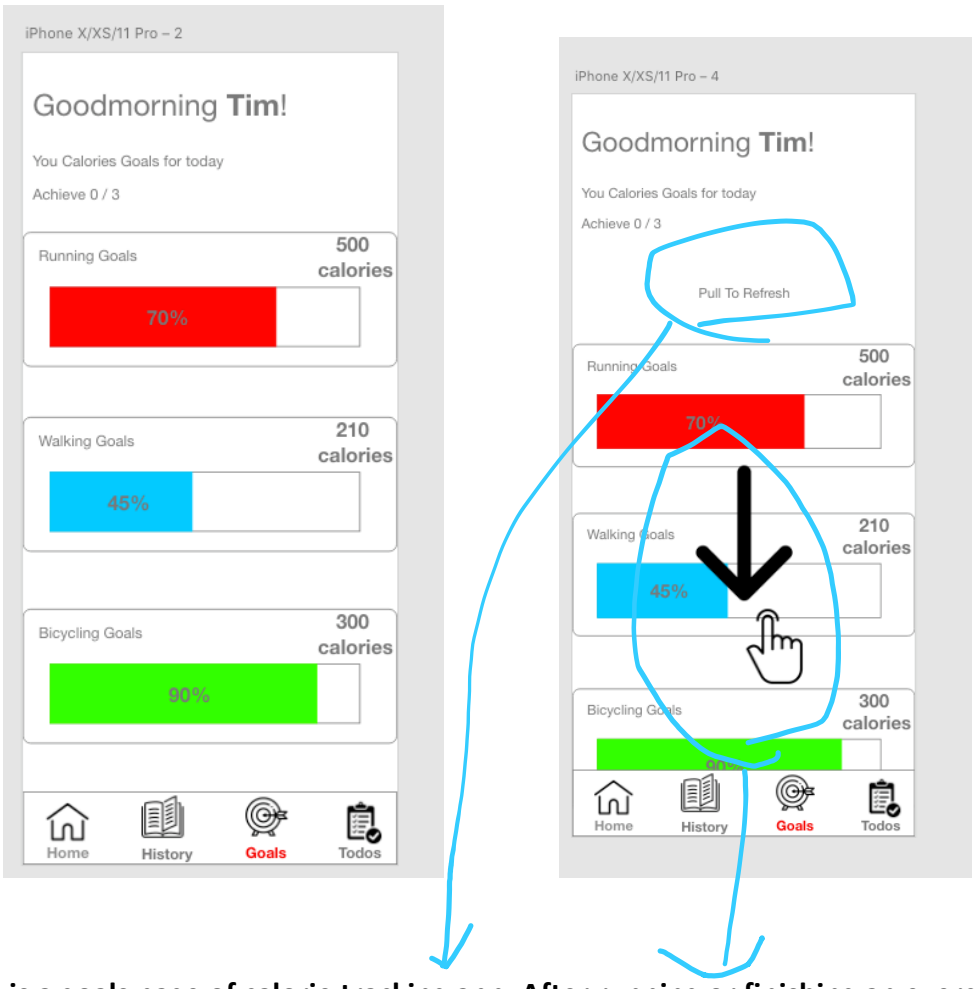
① Tim refresh the screen by pull the screen down

① When the screen is refreshed, Tim will know how much calories does he still need to burn.

② It seems Tim didn't meet the goal.

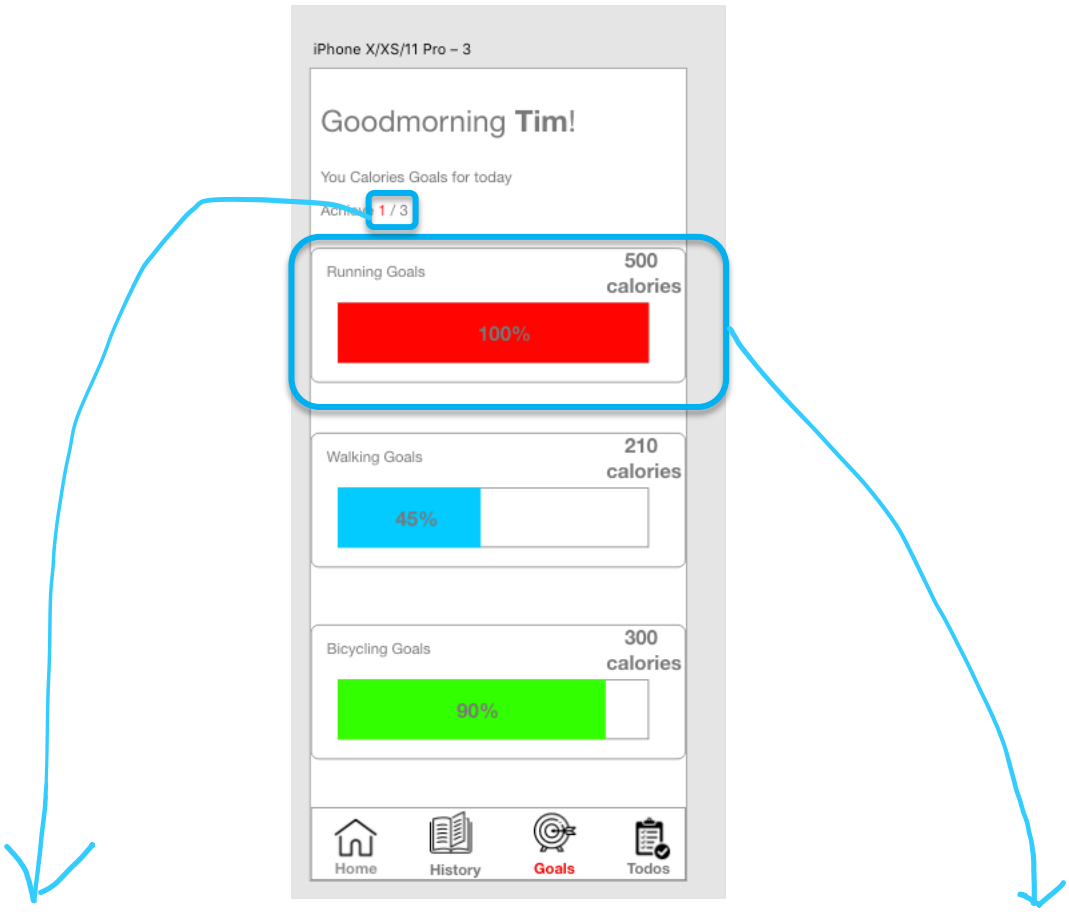
<annotated-wireframes>

As we notice from the storyboard, when Tim or user want to get the latest calorie burning, they need to find a way to refresh the screen. Pull the screen down will be a way that I came as a microinteraction to achieve this function.



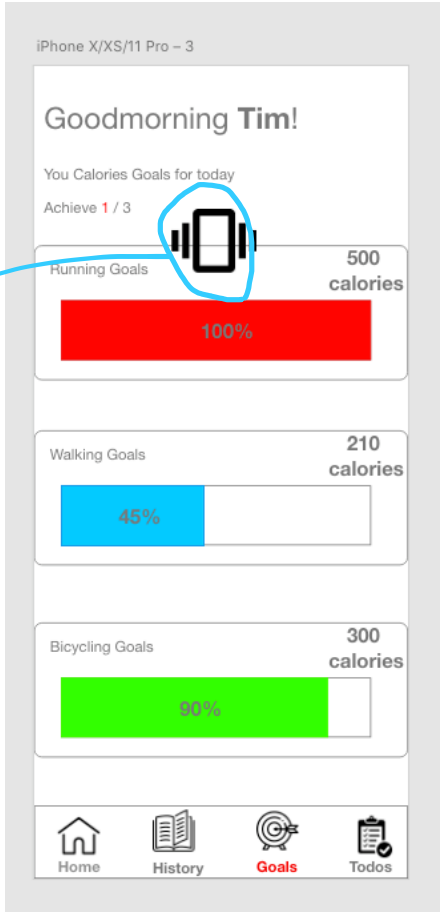
Trigger:

The above is a goals page of calorie tracking app. After running or finishing an exercise, if user want to see their latest information, they can pull the screen down and the information will be updated.



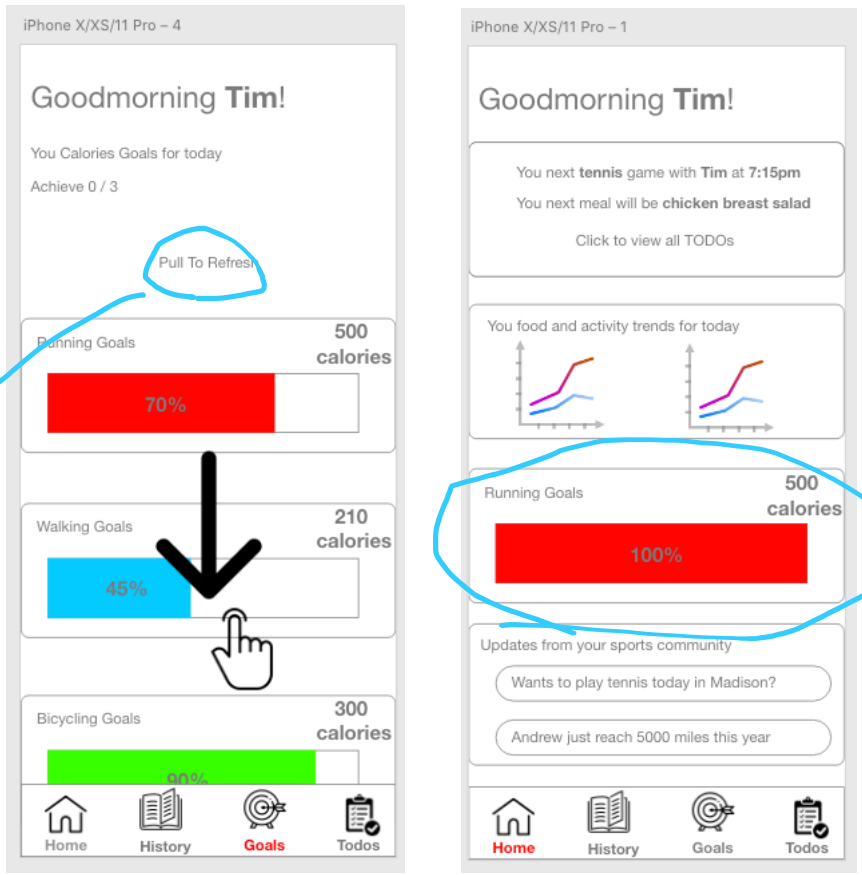
Rule:

The page will be refreshed. The latest information of calorie burning for each goal will be showing up on this page. In addition, it will also update the data for how many goal has been achieved.



Feedback:

First the user can physically feel there's vibration after the screen is refreshed. In addition, there's also a sound like a beep after the calorie data is changed. Moreover, there will also have some animation happening on the status bar. For example, for the first walk goal, it will gradually change from 70% to 100%.



Loops and modes:

Loops: The system will be updated the goals data when the user release their fingers when pull the screen down. However, this could happen repeatedly over the time if user go to have a running in the morning, they could keep checking their calorie burning.

Modes: This refresh microinteraction will also affect the function or the visualization of another tab. As we can see on the second screenshot, the goals data on the front page has been changed when user pull to refresh their goals.