Think Aloud Practice

INFR11158/11230 Usable Security and Privacy

Dr. Jingjie Li

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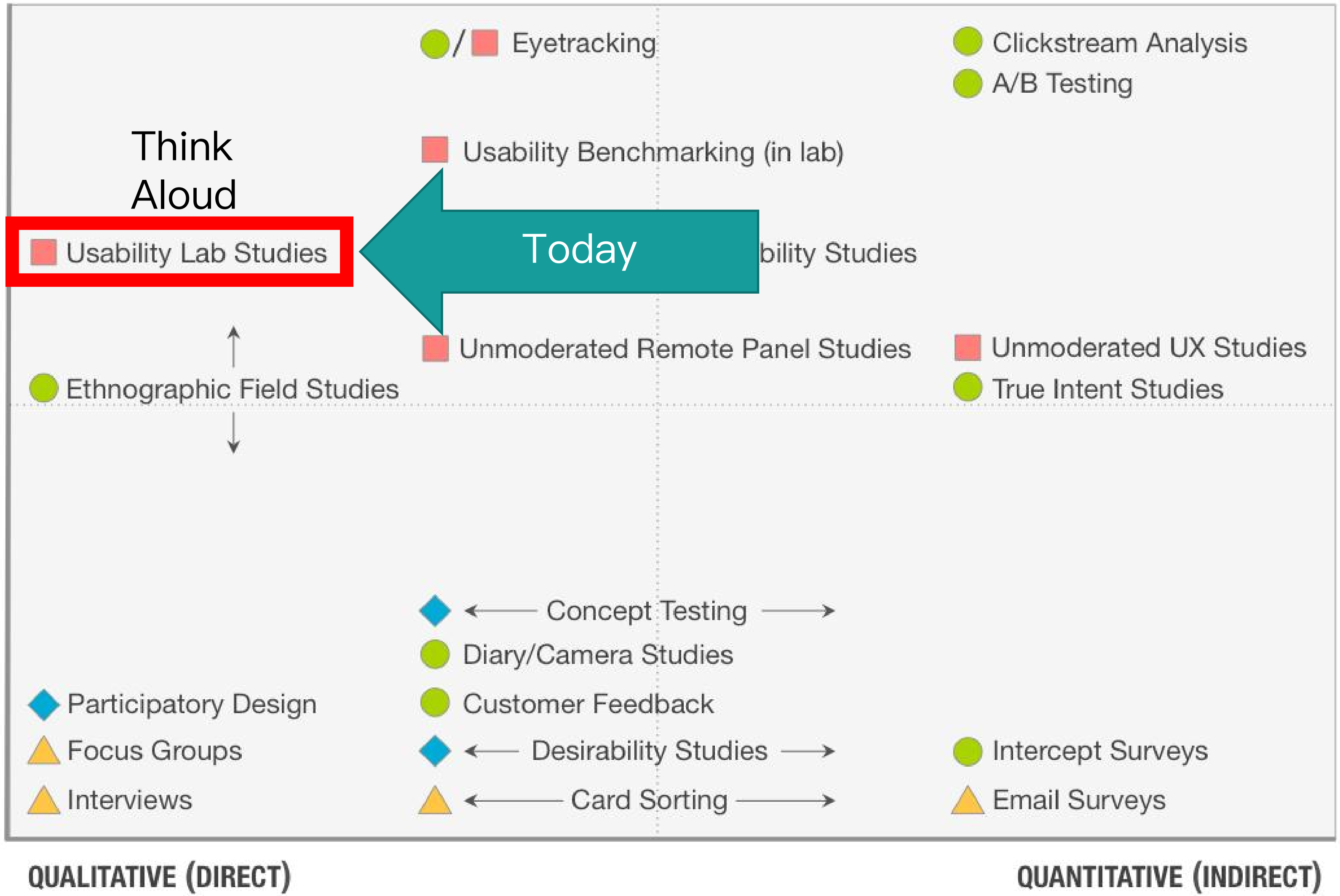
Think aloud

A Landscape of User Research Methods



BEHAVIORAL

ATTITUDINAL

QUALITATIVE (DIRECT)

QUANTITATIVE (INDIRECT)

●/🟥 Eyetracking

● Clickstream Analysis

● A/B Testing

Think Aloud

🟥 Usability Benchmarking (in lab)

🟥 Usability Lab Studies

Today

bility Studies

🟥 Unmoderated Remote Panel Studies

🟥 Unmoderated UX Studies

● Ethnographic Field Studies

● True Intent Studies

◆ ← Concept Testing →

● Diary/Camera Studies

◆ Participatory Design

● Customer Feedback

▲ Focus Groups

◆ ← Desirability Studies →

● Intercept Surveys

▲ Interviews

▲ ← Card Sorting →

▲ Email Surveys

KEY FOR CONTEXT OF PRODUCT USE DURING DATA COLLECTION

● Natural use of product

▲ De-contextualized / not using product

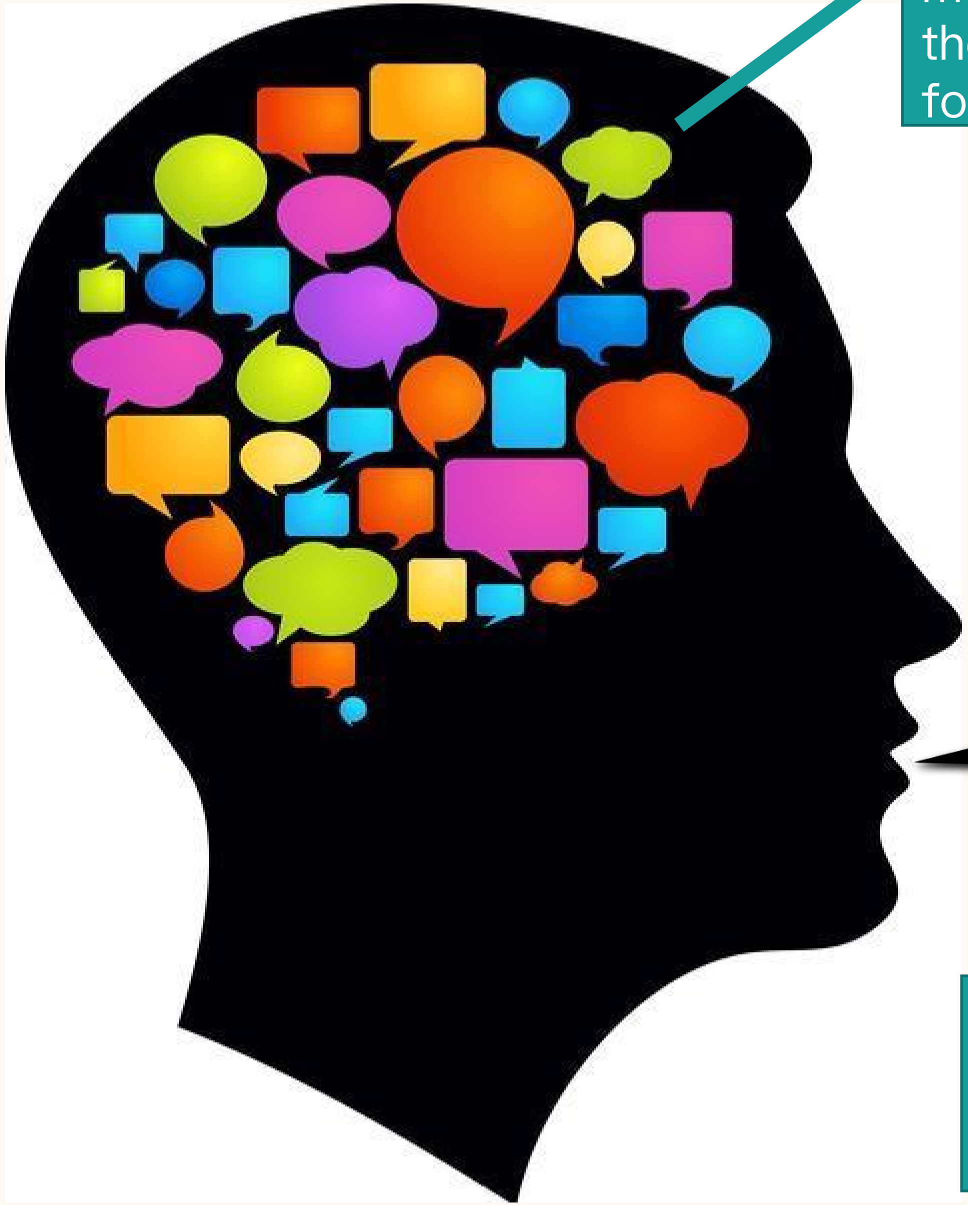
🟥 Scripted (often lab-based) use of product

◆ Combination / hybrid

https://www.nngroup.com/articles/which-ux-research-

Think aloud

- Basic idea: Have a participant use the interface and speak aloud while they do so
- Think aloud is a very versatile, can be long or short, detailed or minimal, planned or ad–hoc
- Pros
  - Learn what the user is trying to do and why they click on some things
  - Very detailed information
  - Testing with about 5 users will find the majority of major (usability) issues
- Cons
  - Only possible
  - (Concurrent) Talking aloud changes how long a user spends on tasks so this method cannot be combined with timing



Think–Aloud aims to measure **what is in the person’s head** at that moment, even if those thoughts are poorly formed.

If we ask the user to **“explain”** their thoughts then they have to convert the jumble in their head into a linear English sentence.

Converting thoughts to sentences forces users to think more and **changes their behavior**

Hm… I’m thinking about what I need to say next… Maybe this button is the one I need.

We ask users to “talk aloud” and we do not interrupt them so that they behave just as they would normally. If you interrupt or ask them to explain it changes their behavior.

Hands-on: Exploring Cookie Opt-out pages

WebChoices: Digital Advertising Alliance's Consumer Choice Tool for Web US
http://optout.aboutads.info/

Your Online Choices | EDAA
http://www.youronlinechoices.com

- Think about what tasks you will ask users to do
  - E.g., Log in to UoE's VPN; store a new password via Apple's password manager
- Design how you can instruct the users in an experiment, avoid jargon and bias
  - Bad example: *Today we will be studying the fact that Android devices take a long time to log in. I will be asking you to log into a provided Android phone several times in front of a camera to see if you can log in quickly*
  - Good example: *This study is about the usability of Android phone login screens. Today I will be asking you to log into a provided Android phone several times in front of a camera. We are using the camera so that we can identify small issues that make the login screen harder to use*

Activity 1: Intro script revisit / write down (3 mins)

Activity 1: Share your intro script (2 mins)

Task and subtask

Primary and secondary tasks

- A “primary task” is basically something **someone wants to do**. It is typically high level and expresses some state or activity that user wants to achieve.
  - Determine if I need to buy anything fridge-related from the store.
  - Spend an hour playing not-too-challenging games
  - Play the song I just thought of.
- A “secondary task” or “subtask” is a **smaller task that the user must accomplish to complete** the primary task.
  - What was the name of the song I’m thinking of?
  - Which music service is likely to have it?
  - There are two versions, which one do I want to play?

- Who are involved?
  - Instructor / experimenter
  - User (participant)
  - (Observer / notetaker)

Extra:

Simple example:

Task: Set an alarm for 7:00am

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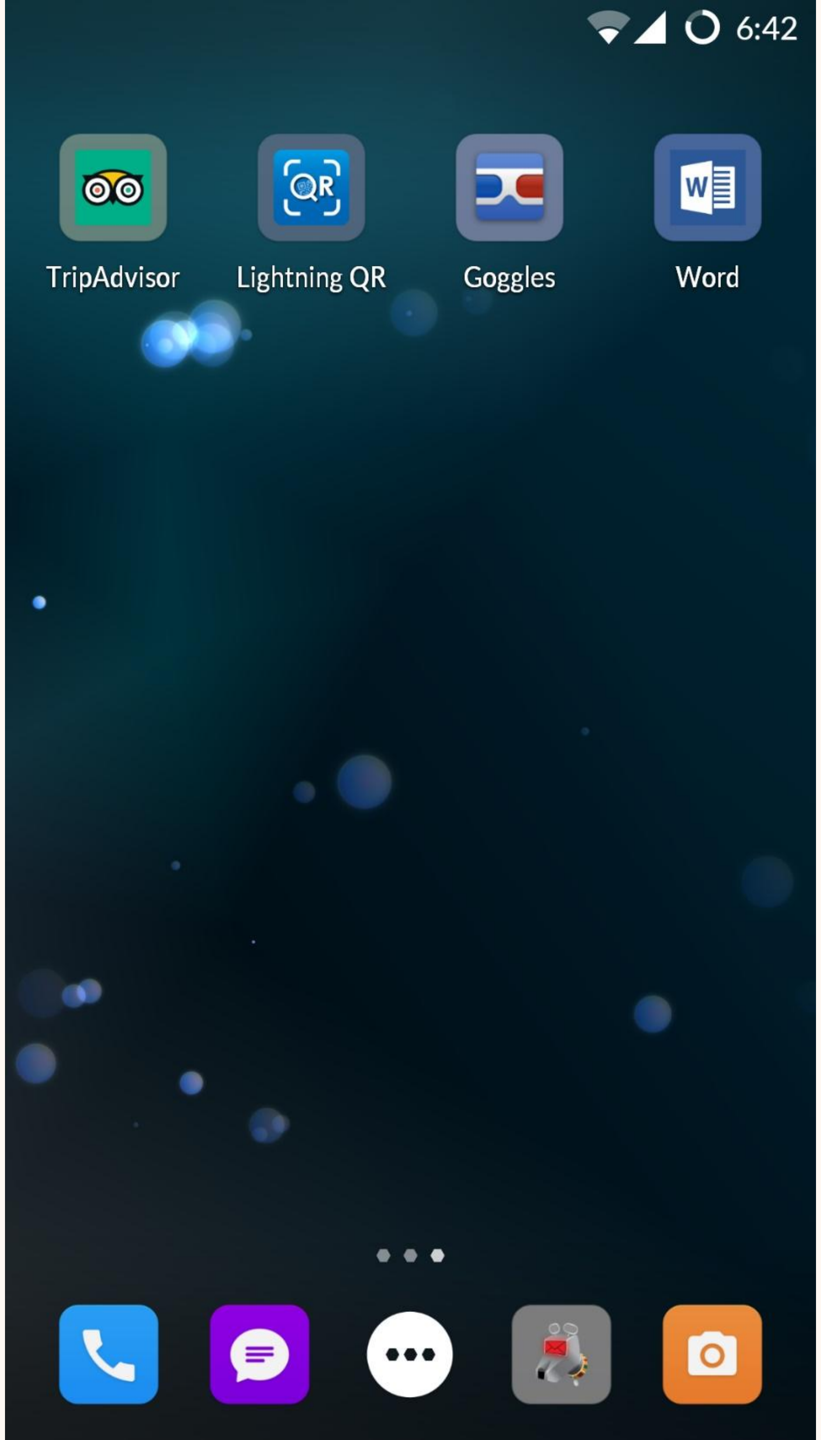
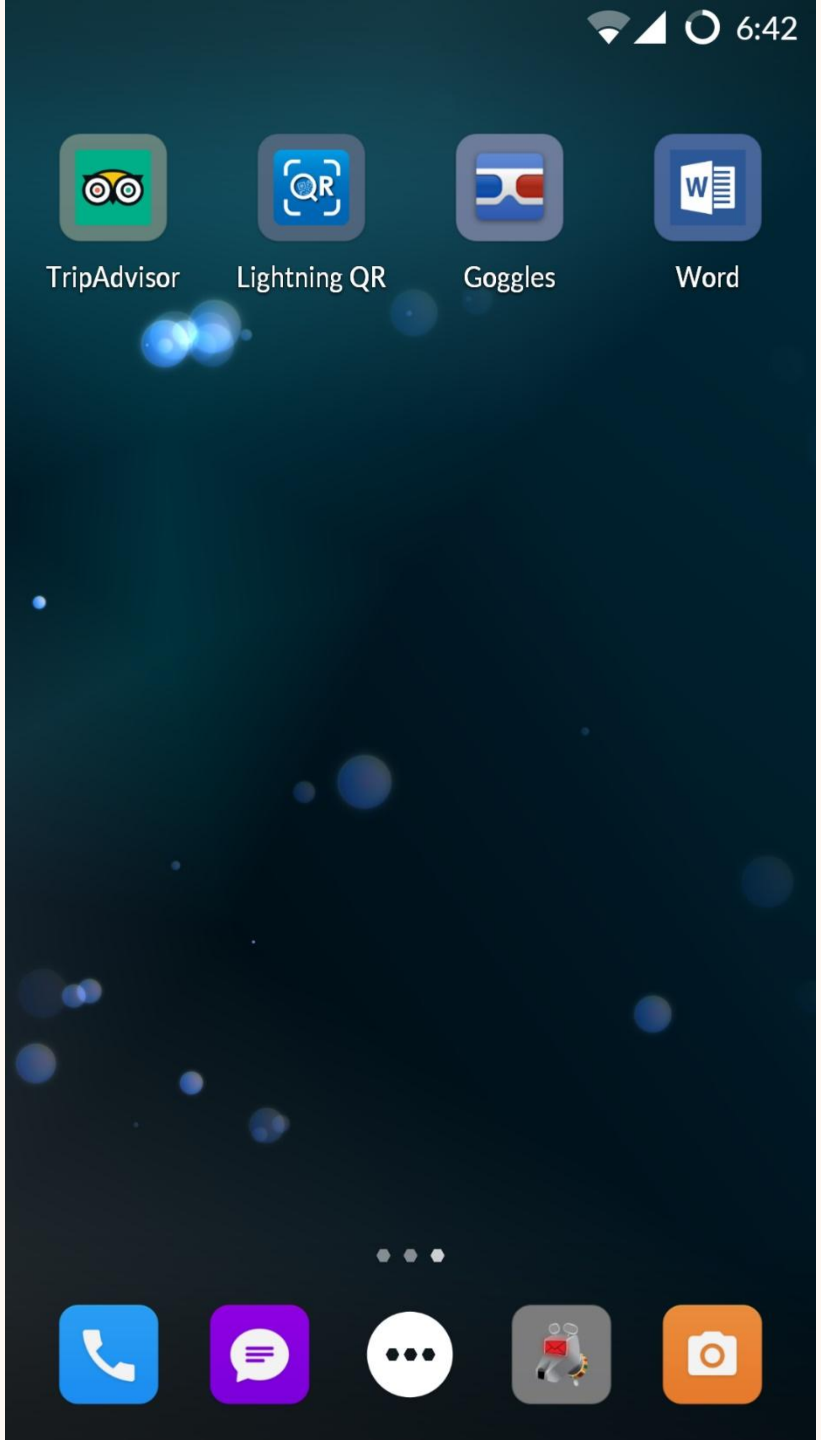


Task: Set an alarm for 7:00am

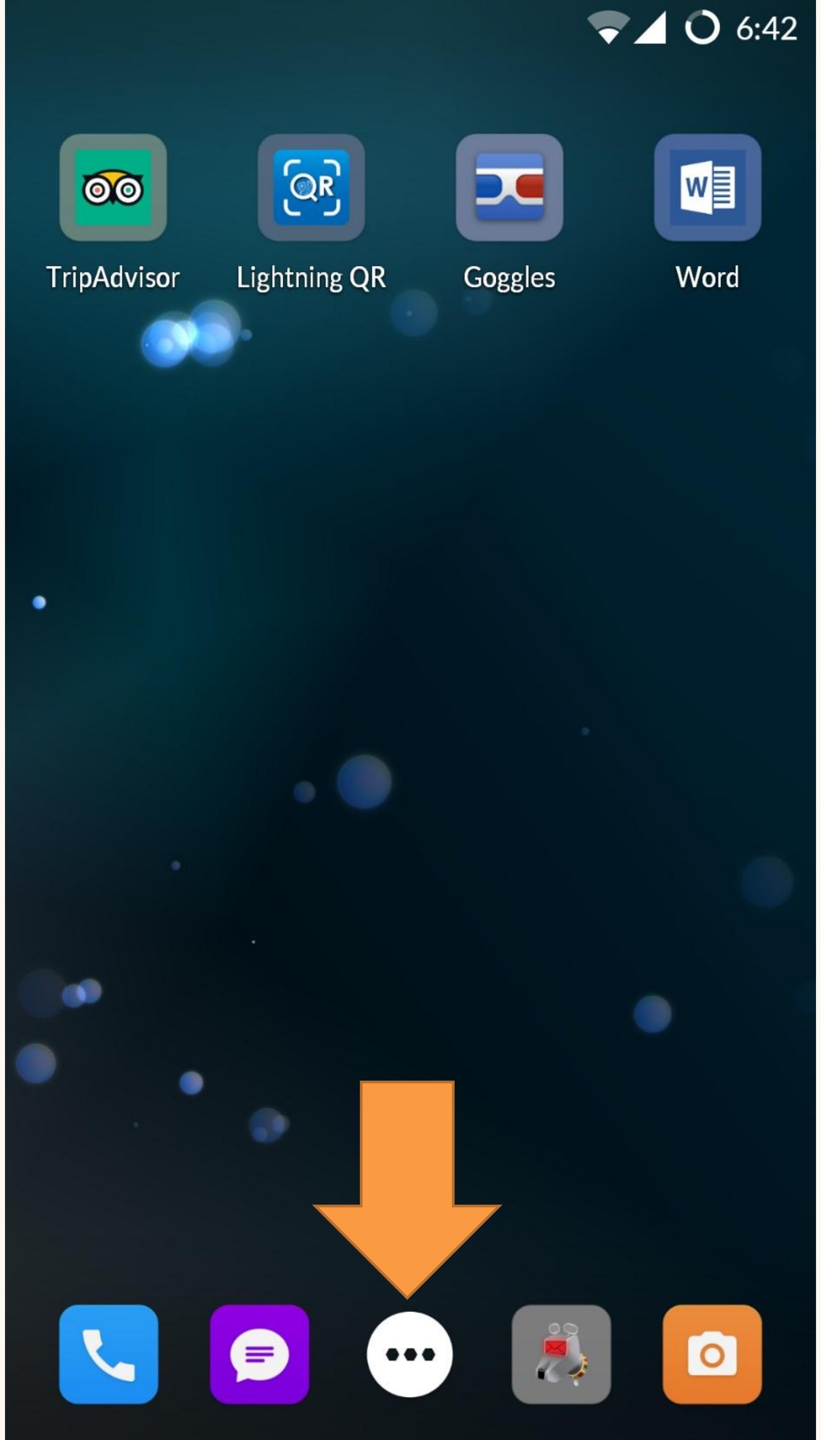
Subtask 1:
Find an app that supports “alarm clock” type functionality.



Task: Set an alarm for 7:00am

Subtask 1:
Find an app that supports “alarm clock” type functionality.

Subtask 2:
Find a list of all apps



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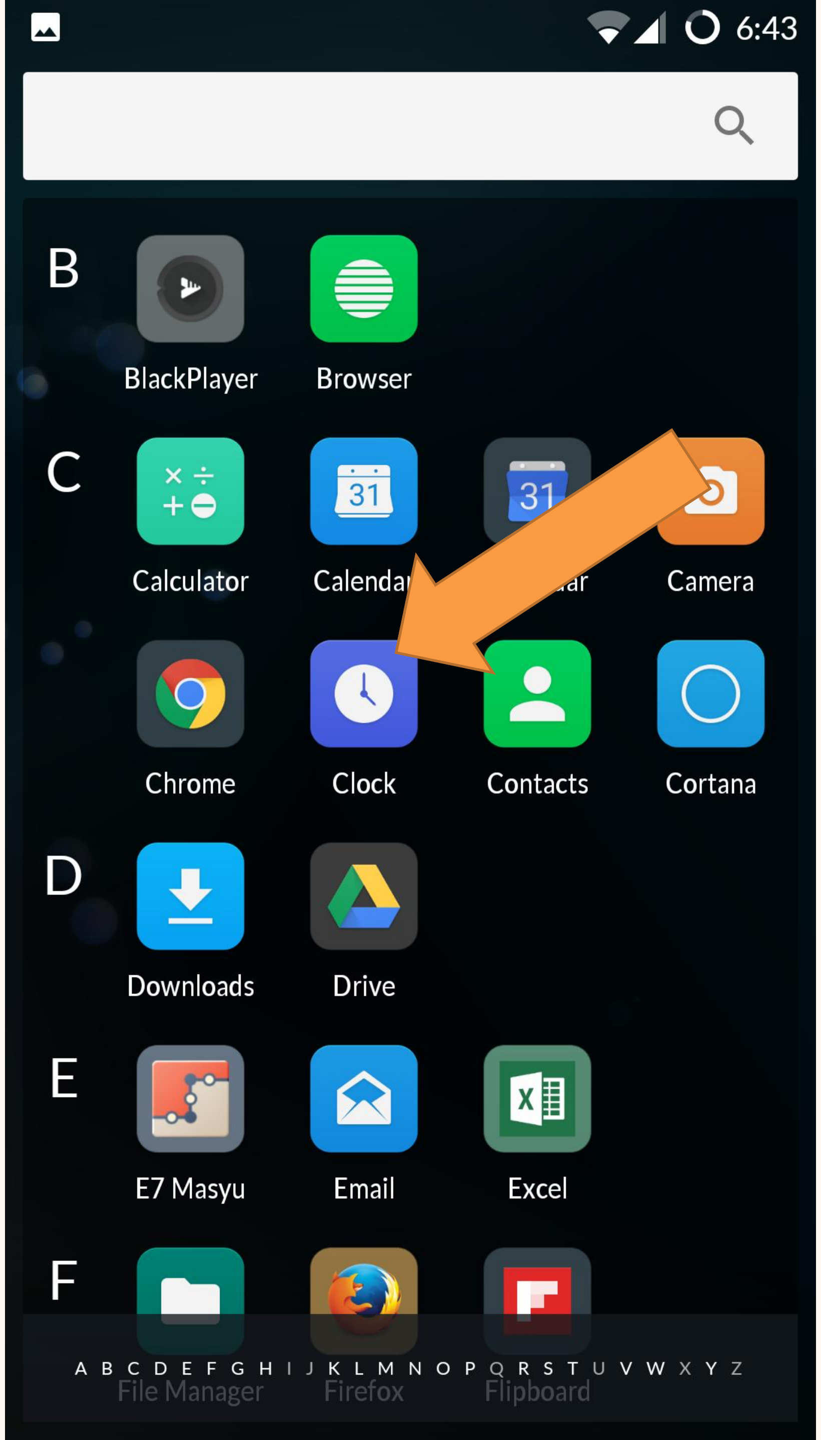

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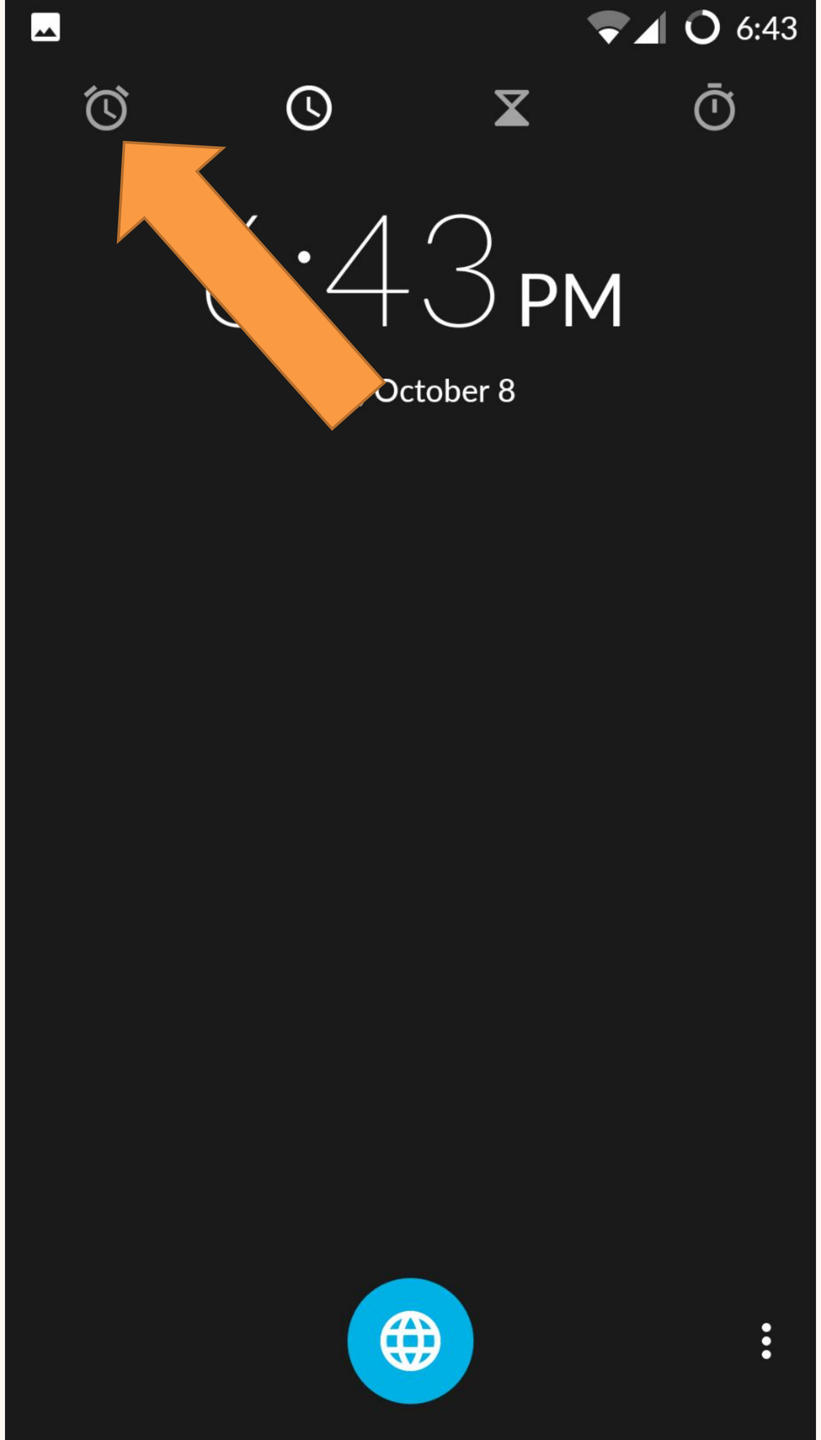
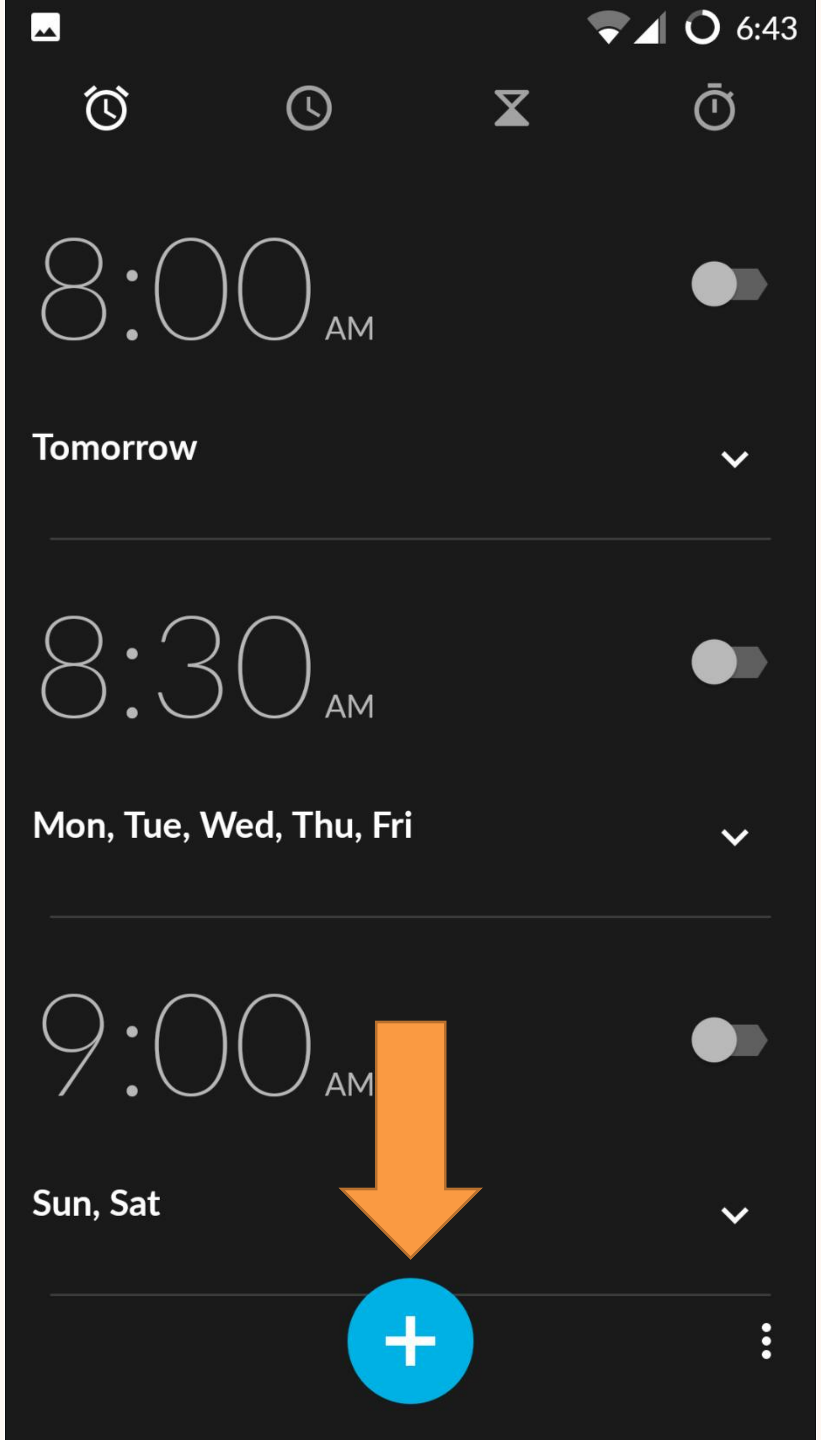


Task: Set an alarm for 7:00am

Subtask 3:
Create a new scheduled alarm.



6:43

8:00 AM

Tomorrow

8:30 AM

Mon, Tue, Wed, Thu, Fri

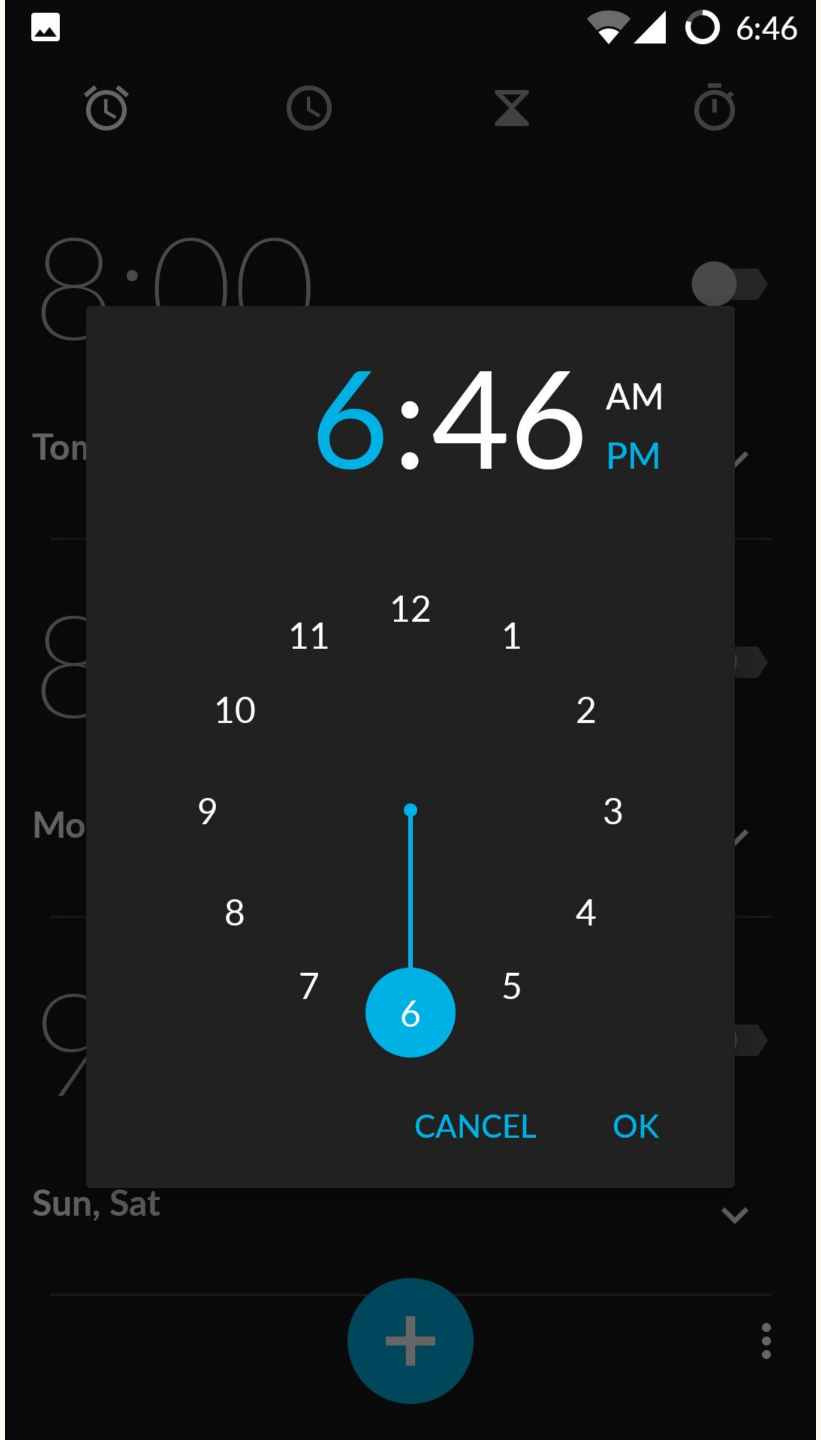
9:00 AM

Sun, Sat

Task: Set an alarm for 7:00am

Subtask 3:
Create a new scheduled alarm.

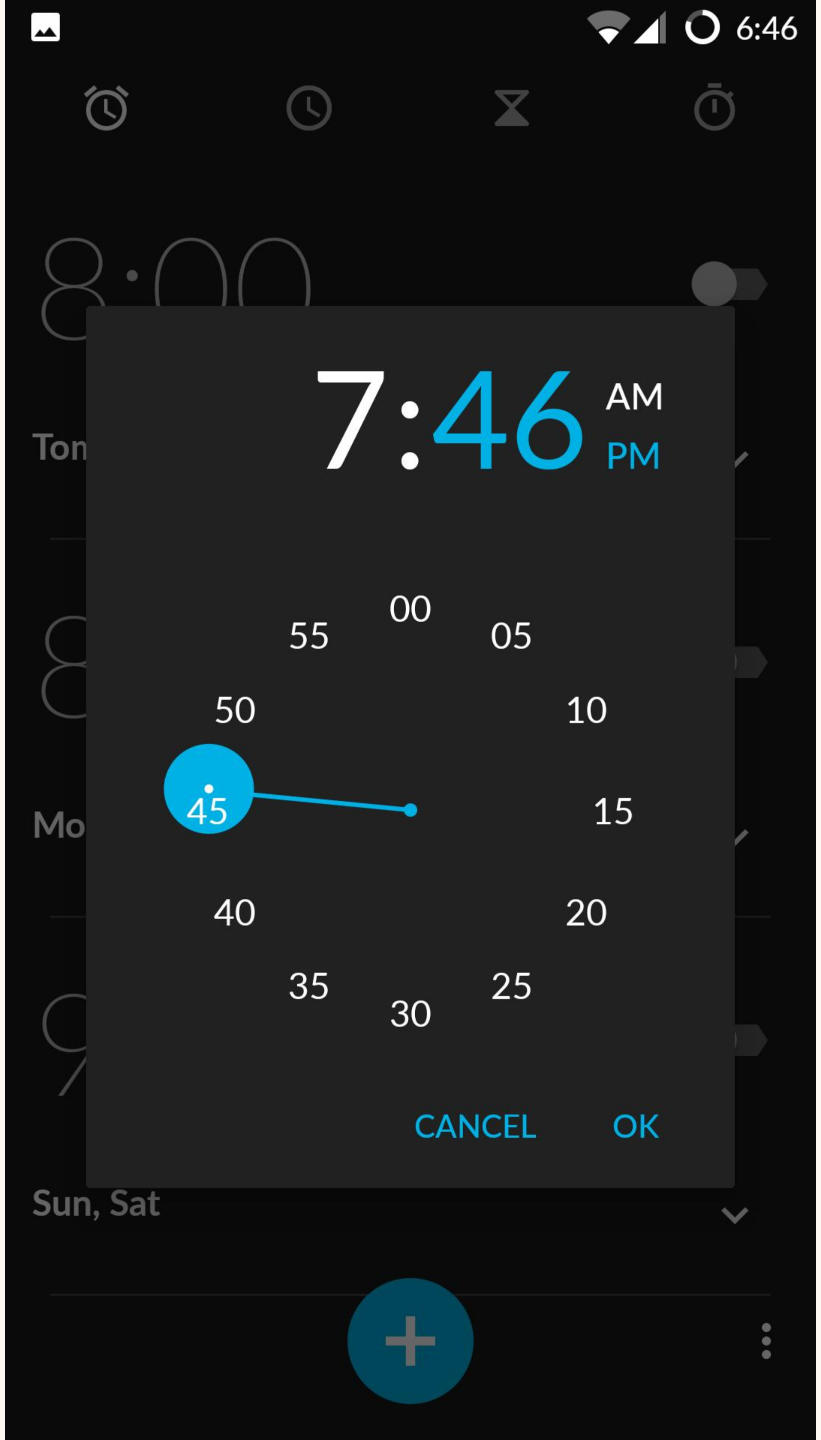
Subtask 4:
Set the hour to 7



Task: Set an alarm for 7:00am

Subtask 3:
Create a new scheduled alarm.

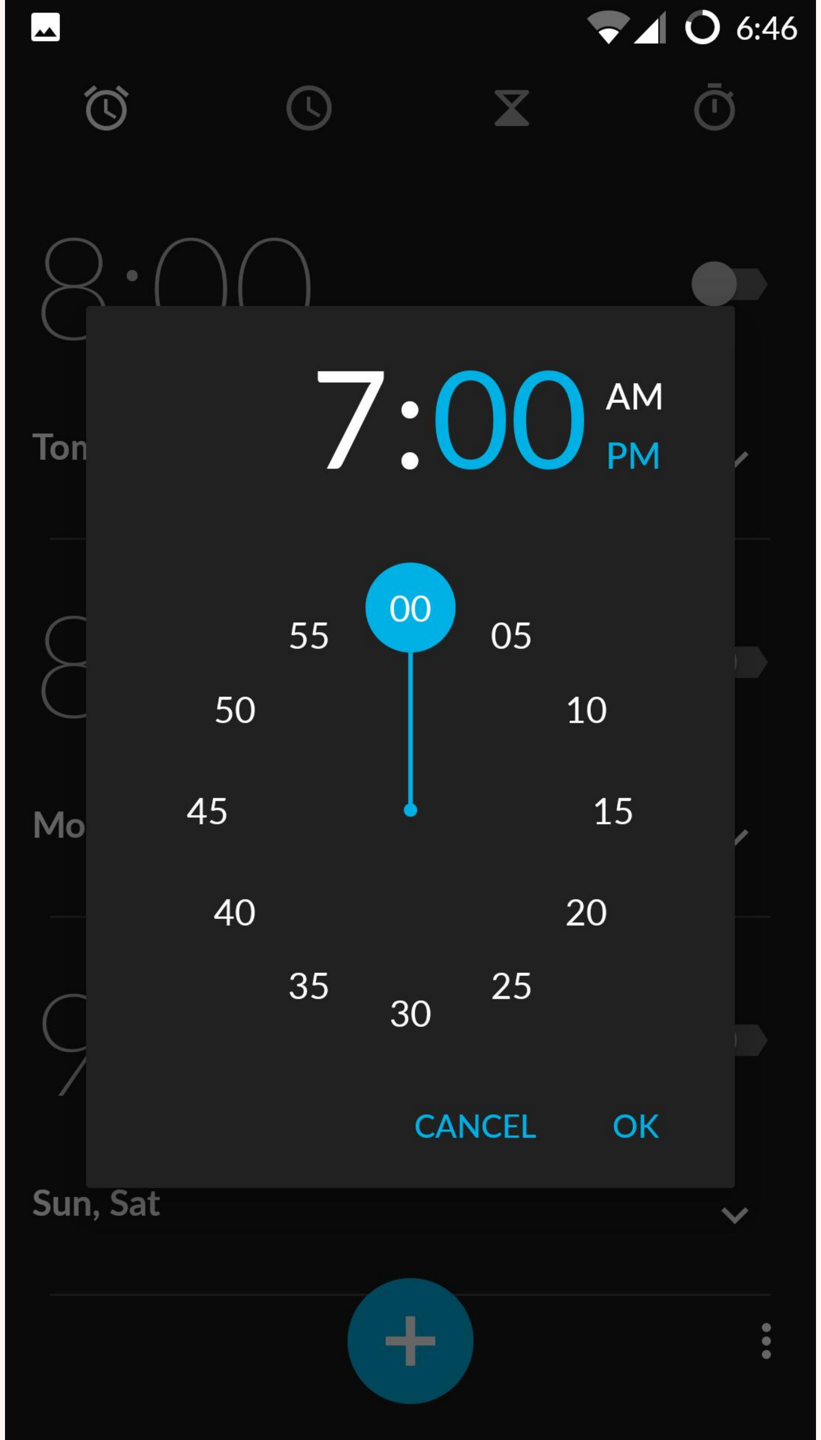
Subtask 5:
Set minutes to 00



Task: Set an alarm for 7:00am

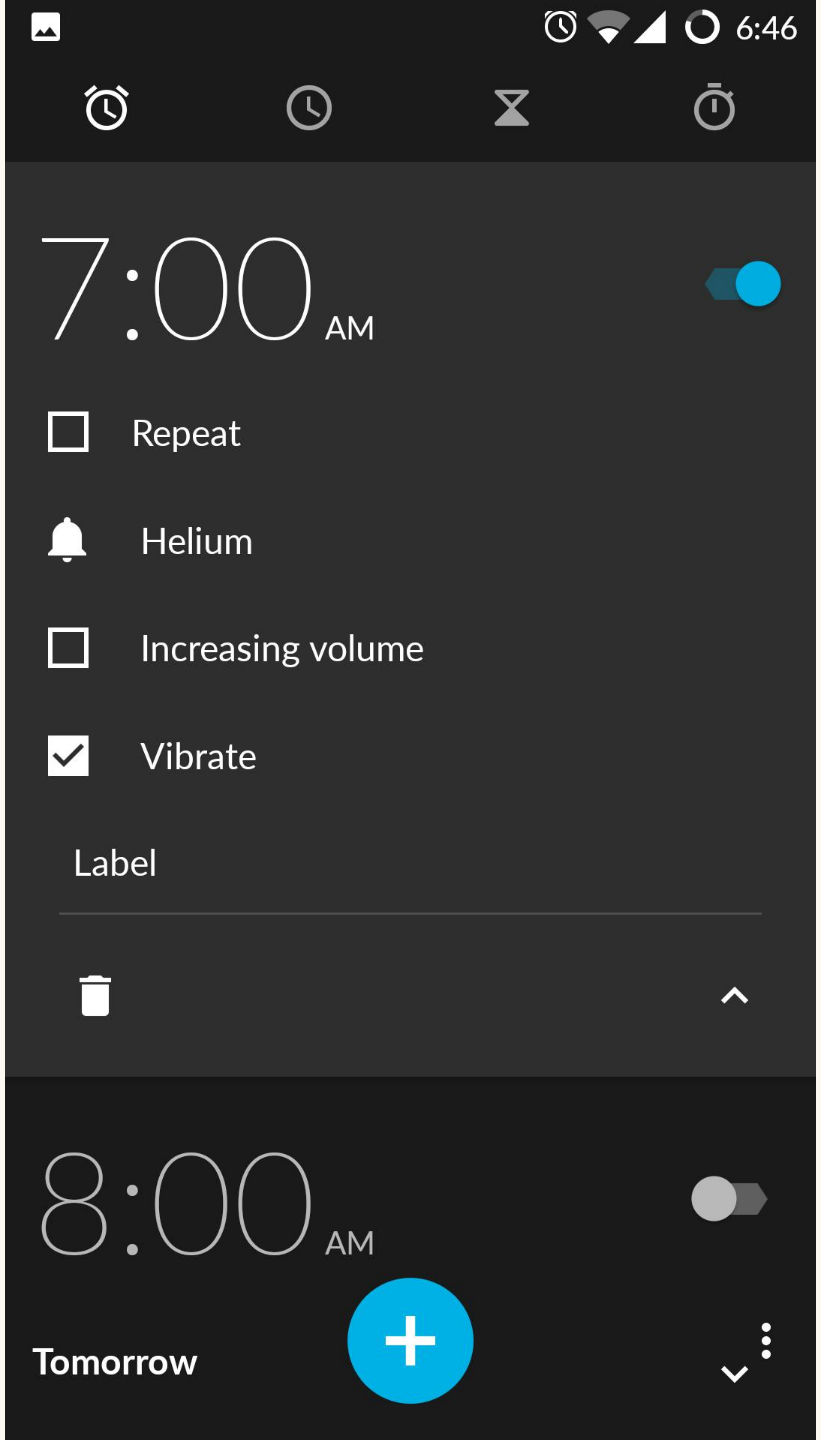
Subtask 3:
Create a new scheduled alarm.

Subtask 6:
Set to “AM”



Task: Set an alarm for 7:00am

Subtask 7:
Check that the time has been correctly set and the alarm is now "on"



7:00 AM

□ Repeat

Helium

□ Increasing volume

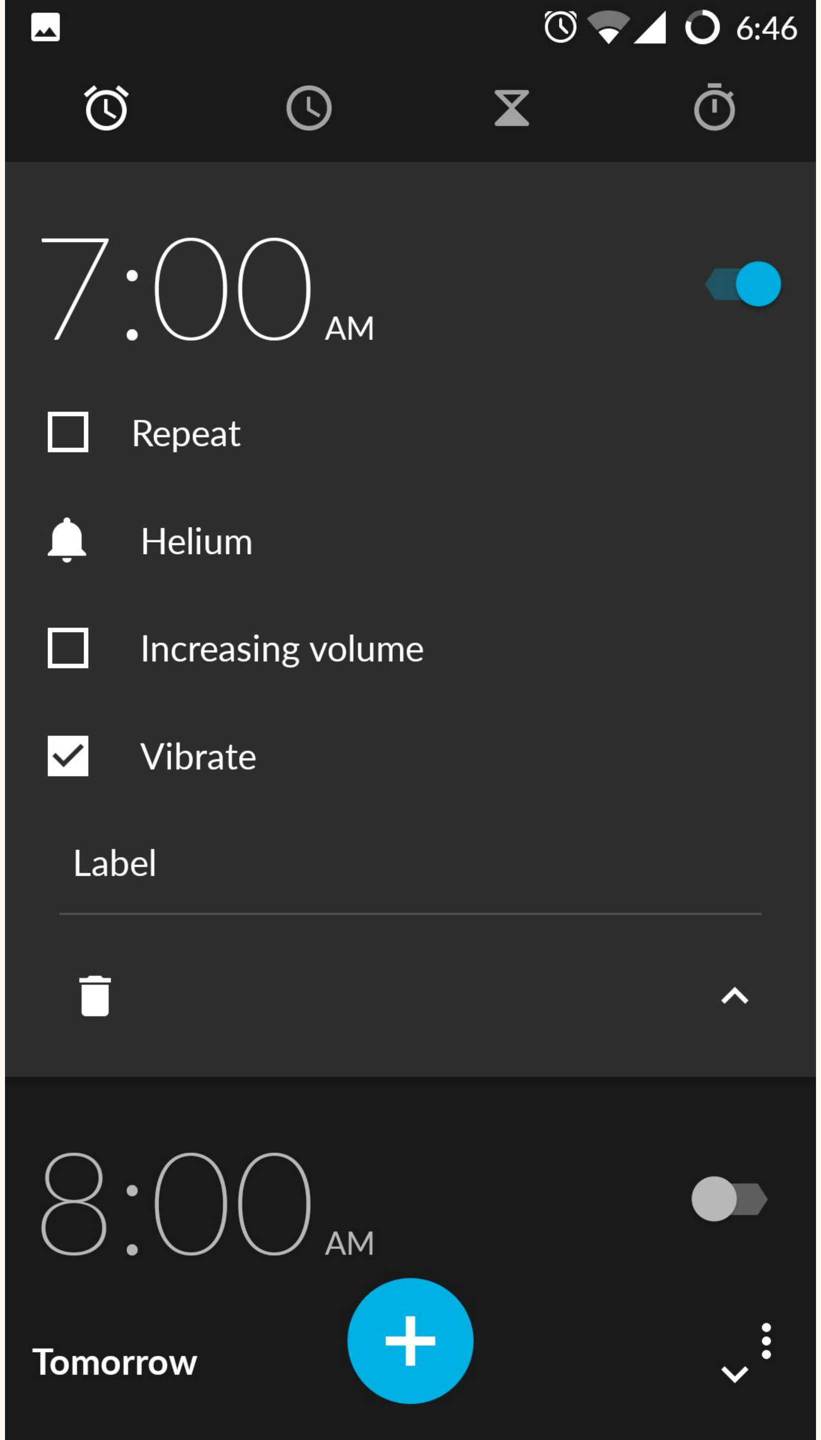
☑ Vibrate

Label

8:00 AM

Tomorrow

Task Completed!



6:46

7:00 AM

☐ Repeat

Helium

☐ Increasing volume

☑ Vibrate

Label

8:00 AM

Tomorrow

Activity 2: Identify 3 tasks from your given website and write down the intro (10 mins)

Activity 2: Any difficulty? Why these 3 tasks?

Note taking tips

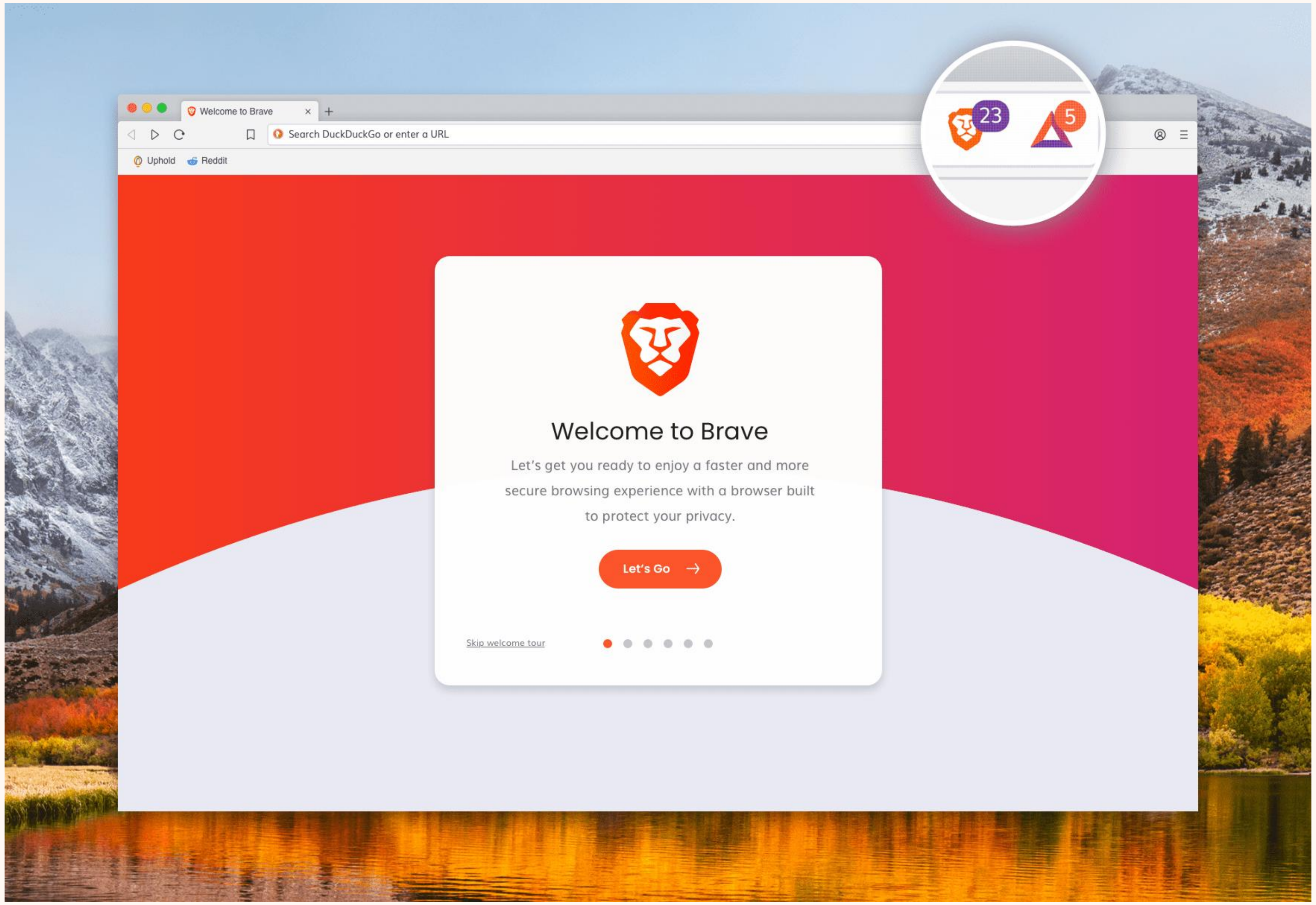
- Traceable
- Future proof
- Enable sharing
- Don’t: overrelying on recording
- Don’t: coming without preparation
- Don’t: biasing our observations

Activity 3: Try it with our neiborgh, take notes and record (if you can) (15 mins)

Activity 3: What went well and what did not?

Remeber to keep your notes/recording and bring it next tutorial

Activity 4 (bonus): Pick your own tool / tasks



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