



Week 5: Designing Studies

Nicole Meng-Schneider

Coursework Updates

What to do, if...

- ... the figma link is broken?
 - Email your CO or TAs and we will help you. But this should have been solved by now
- ... the mockup is not functional/clickable?
 - See if you find the right screens to utilise the human computer method.
 - If you do not have the right screens for the tasks, see it as not possible to complete in your cognitive walkthrough.
- ... the tasks make no sense?
 - Simply evaluate the three given tasks.
- ... there are too many tasks?
 - Pick one of the extra tasks and evaluate the 4.
- ... you can't access the persona?
 - You should have received communication about that. If it still doesn't work, pick one that might fit best and evaluate it with them in mind.
- ... if the mockup has outside links?
 - Despite clear instructions, some mockups still have outside links. Ignore them unless they are needed to complete the task. If they are needed for the task, see the task as incomplete.

Recap Study Types

Study Types

Lab Study

- Observation
- Think Aloud
- Focus Groups
- Interviews
- ...

Pros: Control most variables, detailed data, full attention from participant

Cons: Lab setting might bias results, some aspect are hard to test in lab setting, small sample sizes

Online Study

- Survey
- Click Analysis
- A/B testing
- ...

Pros: Larger sample, more realistic setting, consistent, structured data

Cons: Environment less controlled, no easy way to reach participants for follow ups, careful design required

Mixed Method Study

Pros: More (divers) data

Cons: Take longer to plan and run (costly), data might contradict

Lab Study: Focus Group

- General Research Question:
 - How can we make visitors and cohabitants aware of smart speaker without overstepping social boundaries?
- Goal: Understand the topic of introducing the smart speaker
 - How should the device be introduced? (By whom, which phrasing, when)
 - How would the introduction change based on the environment and the people involved?
- Study Design:
 - Share a situation with a visitor
 - 3 scenarios:
 - write down how they would introduce their speaker
 - discuss the outcomes
 - discuss which factors influenced the nature of the quotes.
 - Discussion on how a smart speaker should be introduced, if at all, and what kind of effect the introduction will have on the social dynamic.
- Why this method:
 - Get participants to discuss
 - Provide material and have them interact with it (floorplans, post-its, figures)



Screenshot of focus group recording. All rights reserved.

Online Study: Survey

- Research Question: Which smart speaker features (calendar, weather, spotify etc) are the most controversial when it comes to sharing?
- Goal:
 - Which features are considered shareable with other people and which not?
 - What influences the willingness to share features?
- Study Design:
 - Screening for participants who encountered a smart speaker before
 - General questions on smart speaker experience
 - Rate willingness to share features with inside and outside users
 - Privacy Scales
 - Demographics
- Why this method:
 - We have a good knowledge of the topic
 - We want to verify our hypothesis with a large sample
 - Reach many people with low cost

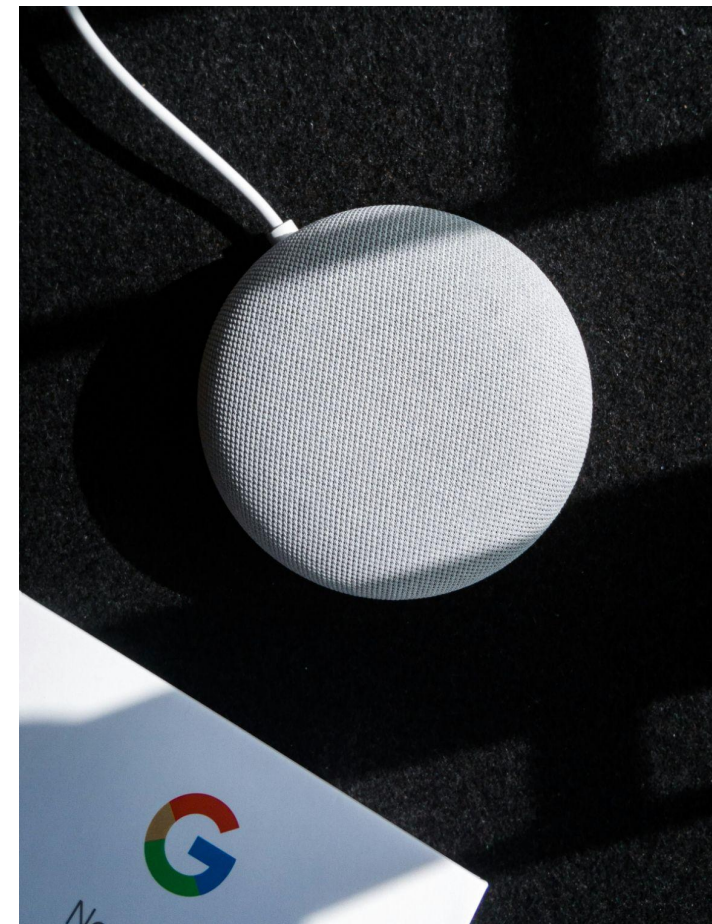
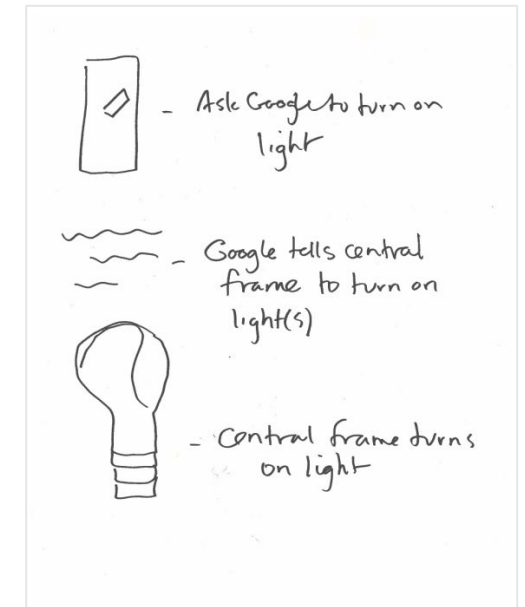
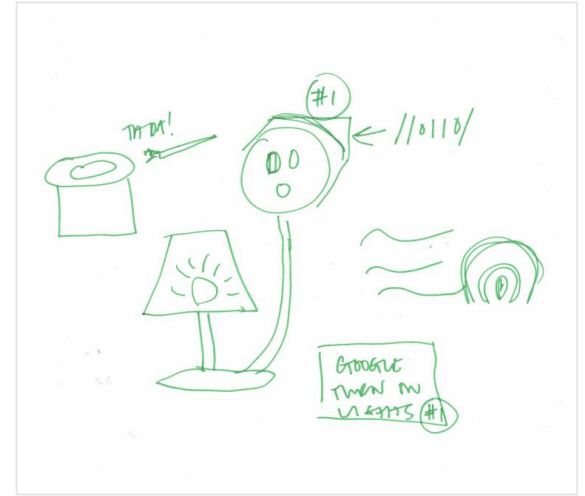


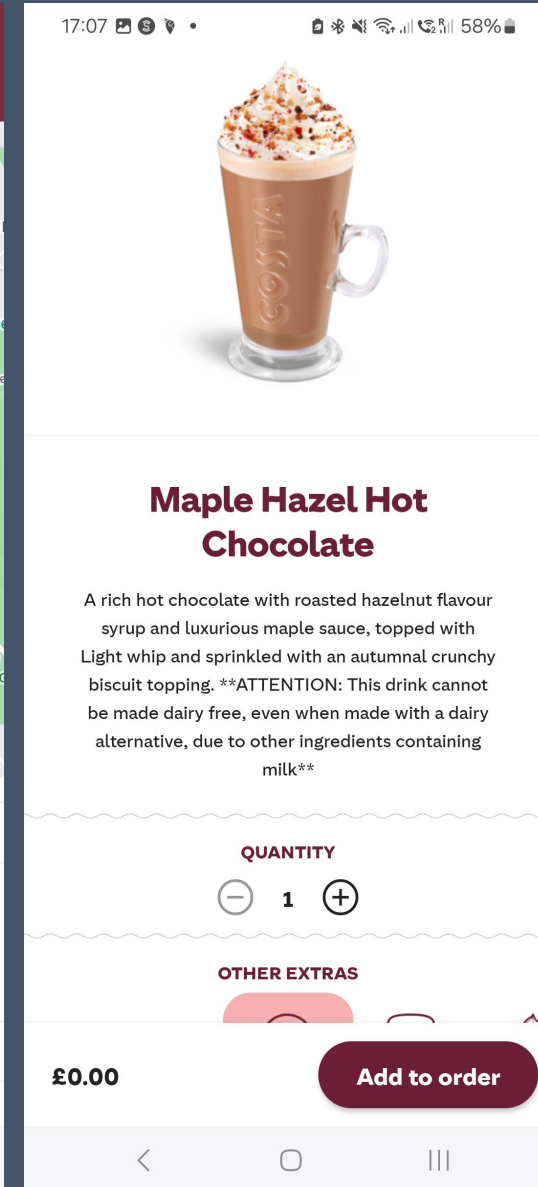
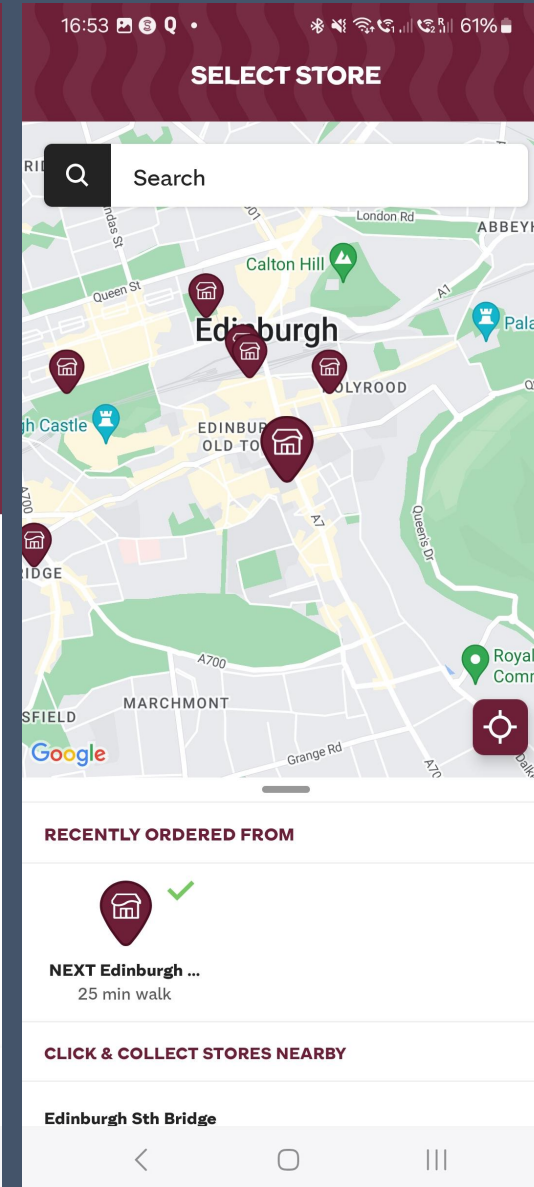
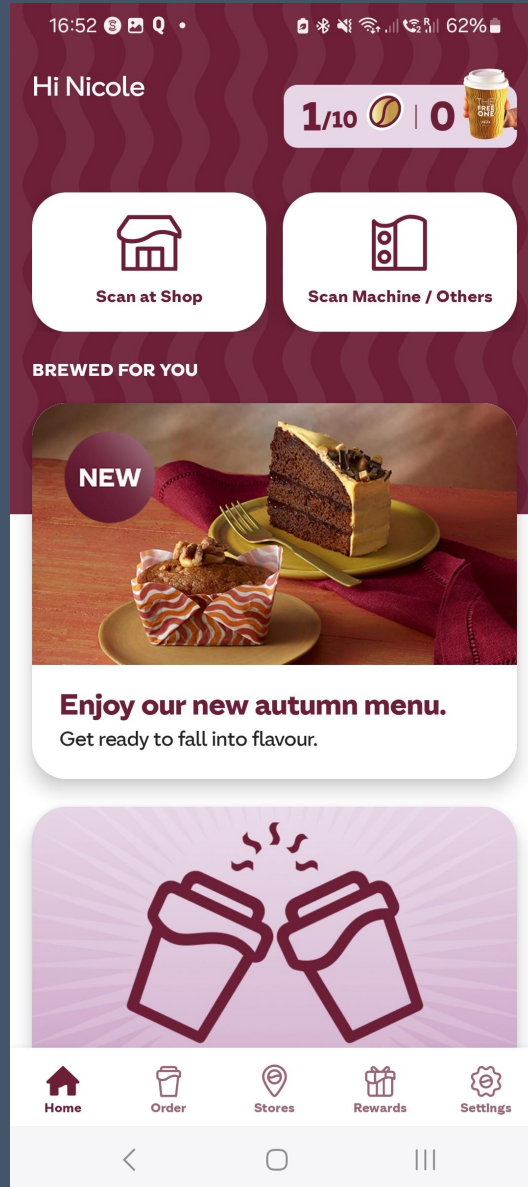
Photo by [Sayan Majhi](#) on [Unsplash](#)

Survey + Interview + Listing

- Research Question: What is the difference in smart speaker perception between owners and visitors?
- Goal: Compare in-house users (account and resident owners) and visitors in terms of:
 - understanding of how SS work,
 - their concerns about data usage,
 - protection behaviours they use,
 - social norms around smart speakers
- Study Design:
 - Screening survey with general smart speaker experience questions
 - Semi-structured Interview
 - Drawing to support mental model description of features
 - Listing exercise
- Why this method:
 - Broad, explorative research question
 - Dive deeper into participant answers
 - Adjust interviews after each session

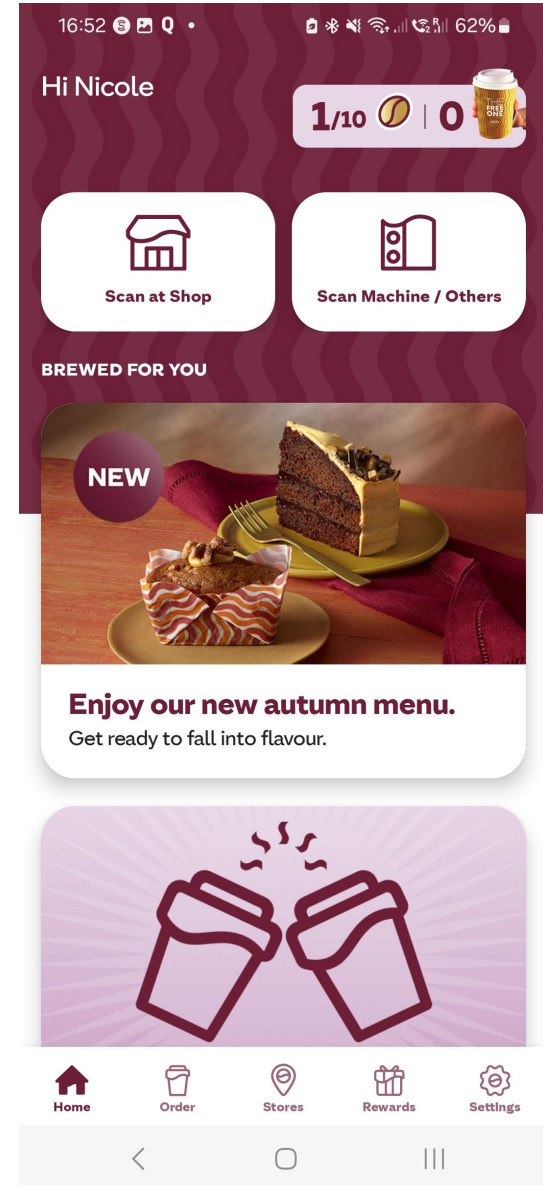


Study Design Example



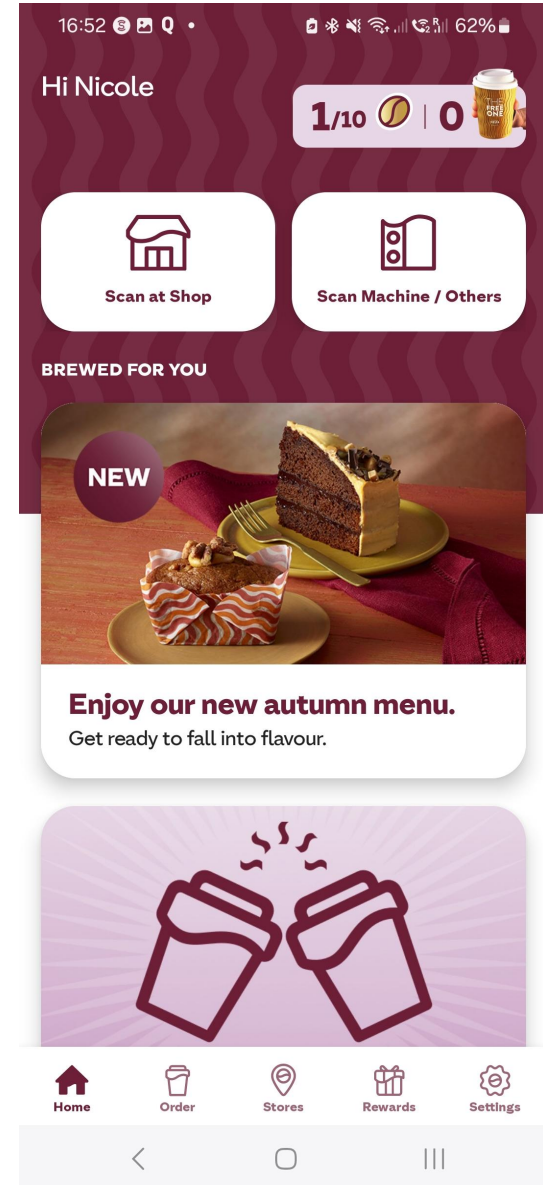
How to design a study?

1. Define what “usable” means



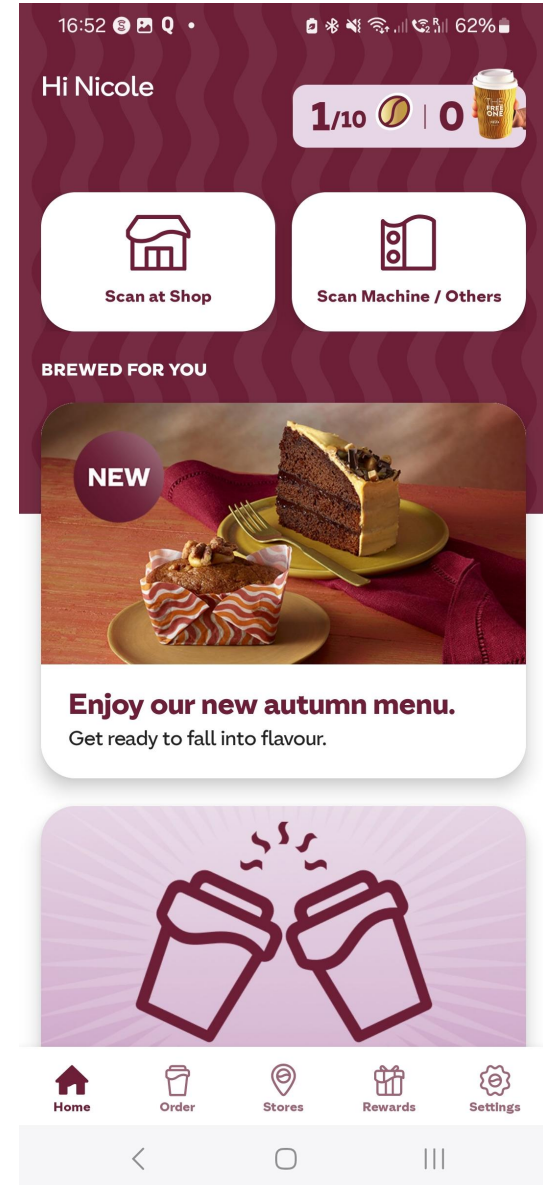
How to design a study?

1. Define what “usable” means
 - a. The user can order a coffee to pick up
 - b. The user can use only their phone to interact with the company
 - c. The user will know when their actions were successful
 - d. The user will feel satisfied after their interaction



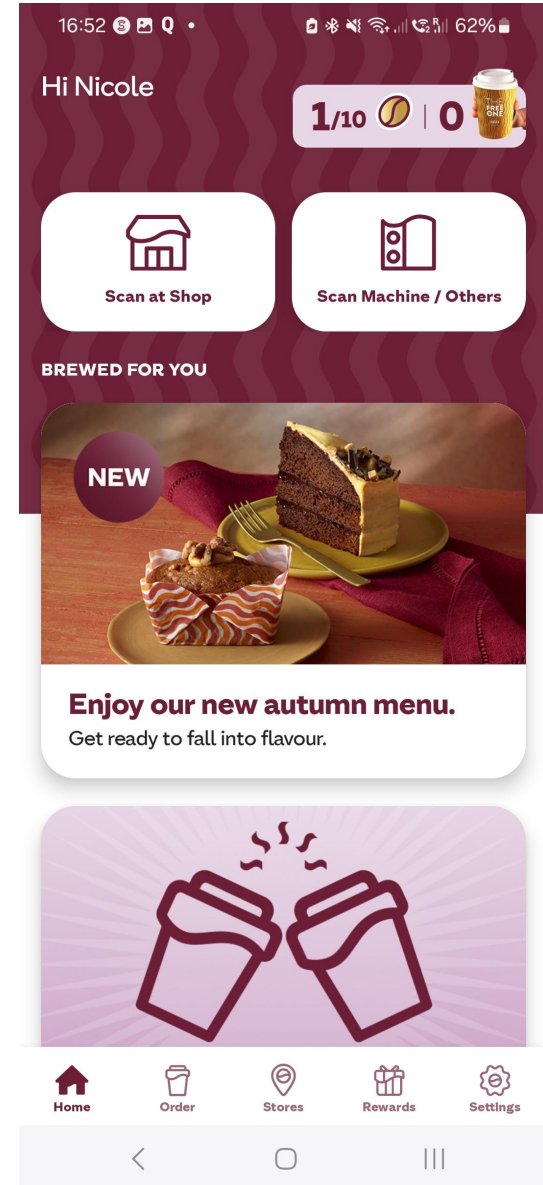
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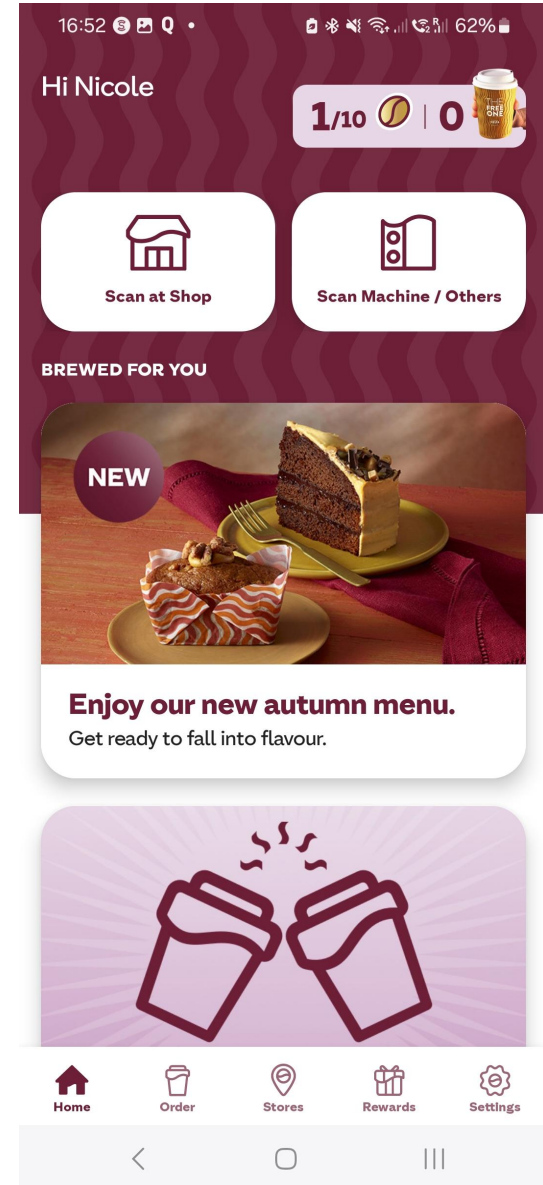
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 - a. We want to test our goals and control the environment
 - b. Lab study? Mixed method study? Online study?



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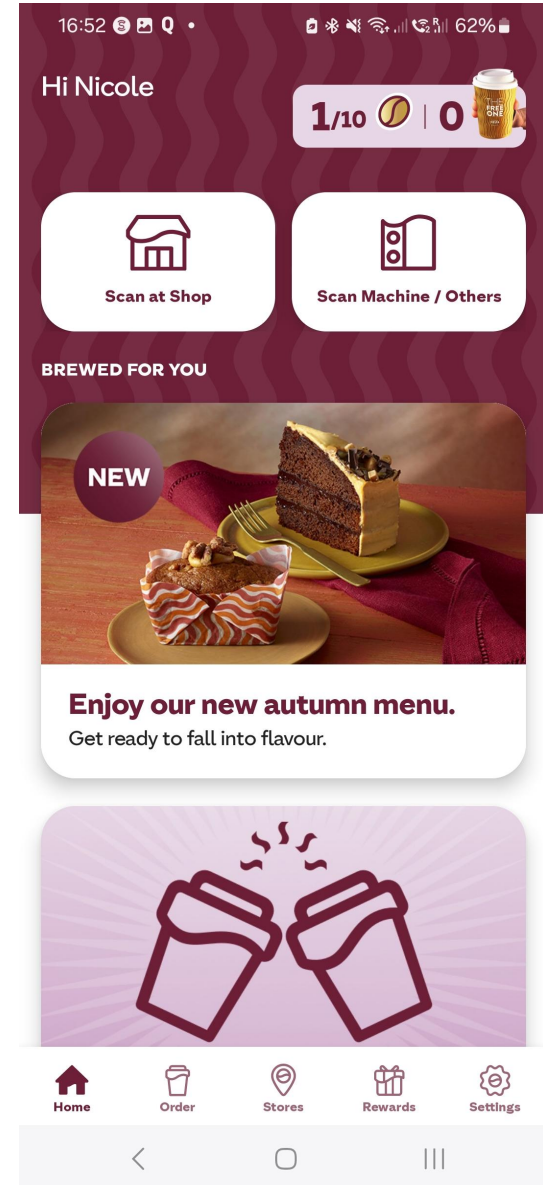
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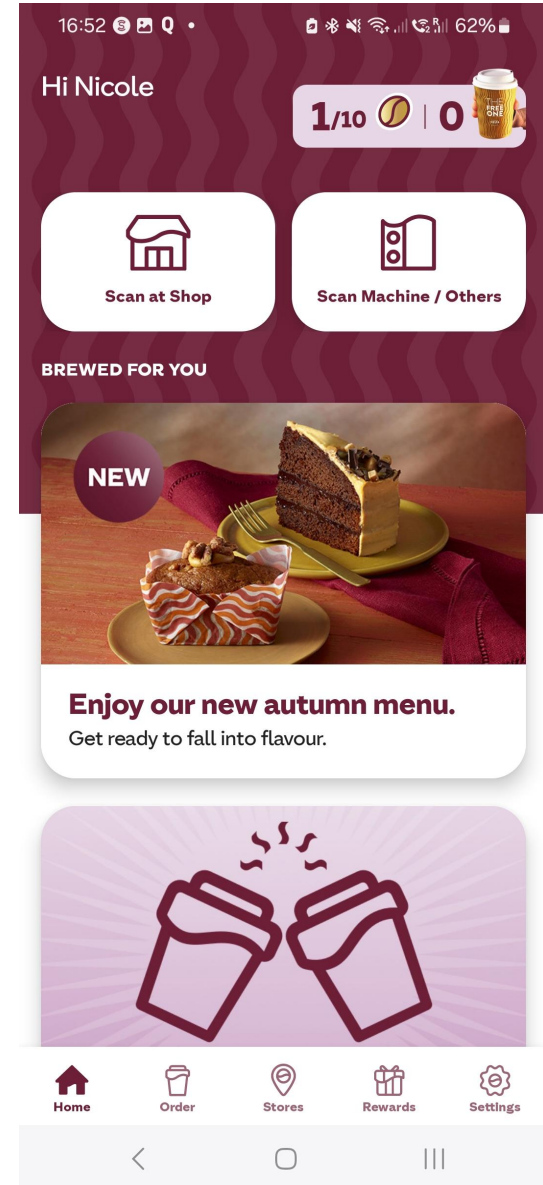
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2. Select a study methodology
 - a. We want to test our goals and control the environment
 - b. Lab study - Observation



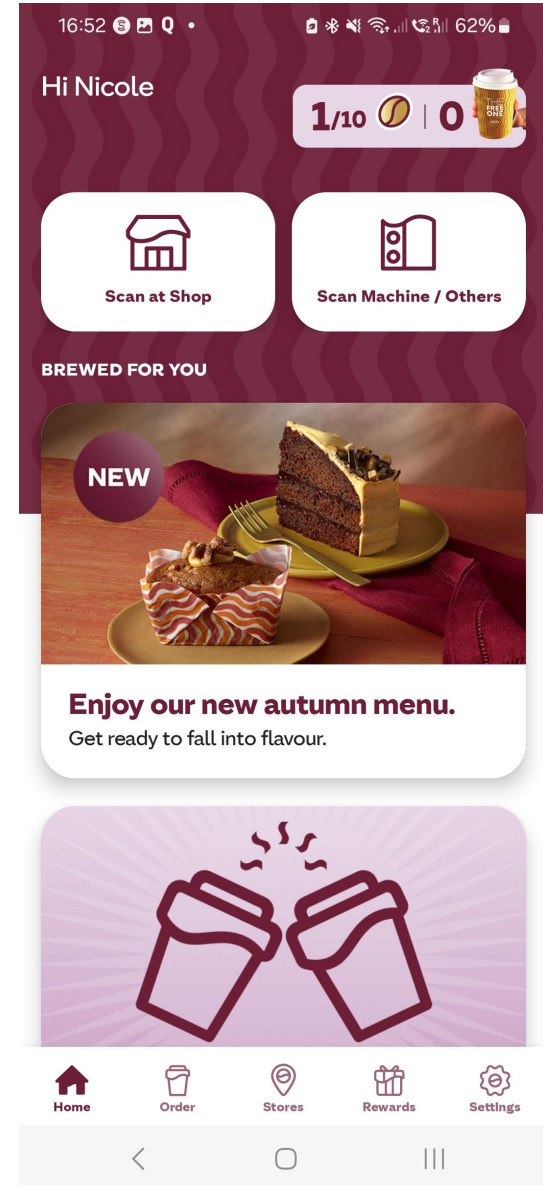
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3. Identify the data to collect
 - a. Notes
 - b. UARs



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 - a. Notes
 - b. UARs
4. Design the study structure
 - a. Prepare tasks
 - b. Write script



Observation Study

Tasks:

1. View the hot drinks menu on the costa app.
2. Order a “Maple Hazelnut Hot Chocolate” for collection.

Script:

1. Welcome the participant.
2. Inform them of their rights and what is going to happen/what we expect them to do.
3. Ask for consent!
4. Begin recording, if agreed on
5. Hand out tasks and ask them to perform them
6. Thank the participant and debrief. Answer their questions
7. Goodbye and lead them out

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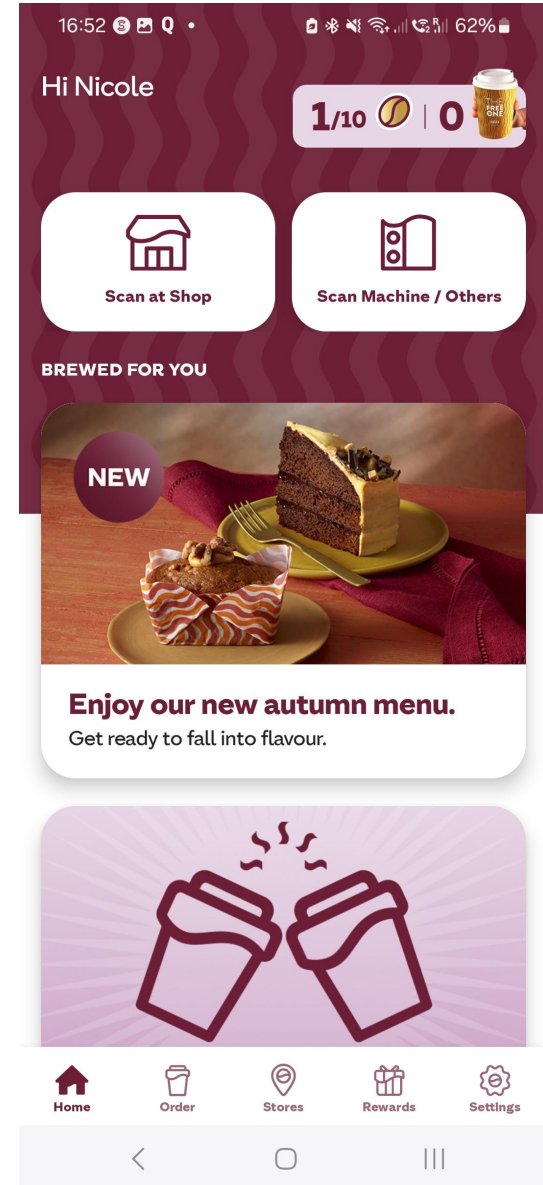
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3. Ask for consent!
4. Begin recording, if agreed on
5. Hand out tasks and ask them to perform them
6. **OPTIONAL: Make it Mixed Method by including an interview**
7. Thank the participant and debrief. Answer their questions
8. Goodbye and lead them out

Then, write notes, review recording, write UARs or memos.

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3. Identify the data to collect
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4. Design the study structure
 - a. Prepare tasks
 - b. Write script
5. Run Study and Analyse



Group Activity

Practice Study Design

Consider you want to test the current design for the new Learn/Opencourse page.

- How would you test is in a
 - Lab study?
 - Online Study?
 - Mixed Method study? (10min)
- What would you ask the participants to do? (5min)
- Consider the things you want to test. What are advantages or disadvantages? (5min)

Share with another group (5min)

Any questions?



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