Homework 1: Discovery

17-356: Software Engineering for Startups
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Due: Monday, January 20, 2025 (11:59 PM) 100 points total

Assignment objectives:

- Think through the kind of product you'd like to build. Your ideas are non-binding (and, moreover, you probably shouldn't get too attached to them)! You'll have several opportunities to pivot based on discovery or user feedback, and to collaborate with your classmates to refine your ideas.

- Practice formulating unbiased discovery questions that yield useful data (as opposed to false positives).

- Practice talking to real people about their pain points.

Handin instructions. Please submit your assignment through the Gradescope link (supports PDF and jpgs/photos) by the due date. When submitting, please indicate which pages of the PDF correspond to each homework question. Putting page breaks between questions makes this simpler.

Question 1, Choosing a focus, *(20 points).*

What's a problem you're uniquely suited to solve? That's probably a really hard question to answer right now. Instead, think about topics you're familiar with; maybe you're an avid cyclist, or a specialty headphone enthusiast, or a gardener. What problems have you or your peers encountered in your cycling/headphone enthusiasm/gardening? Write a paragraph or two about your area(s) of interest and some problems that may be worth solving.

Question 2, A collection of questions, *(20 points).*
Reading: The Mom Test, chapters 1, 2, and 3.

Remember two of the three pillars of The Mom Test:

- Talk about their life instead of your idea.

- Ask about specifics in the past instead of generics or opinions about the future.

With those pillars and the reading in mind, create a list of fifteen questions that will help you learn about problems that people are having in your area of focus.

Question 3, Asking people questions, *(30 points).*
Reading: The Mom Test, chapter six.

Have *four or more* conversations with people who are somewhat engaged
in your area of focus. For example, if you're interested in solving pain points
around excercise apps, all three people should at least want to excercise. Use
your questions from the prior section as a guide, not a script. Ask followup
questions to discover what problems your conversation partners are having.

First, describe where you found these four people and how you talked to
them (e.g., formally over zoom, informally in the gym, etc.).

Next, describe one mistake you made during your discovery conversations,
and one exchange that went well (and why).

Question 4, Summarizing what you learned, *(30 points)*.
What problems did people have? How were they solving them? What *wasn't*
a problem? Summarize what you learned from your discovery conversations.
What might this mean for your product/focus area/problem of choice?