

# GRP01 : group brainstorm & team plan

## =====overview

In this assignment you will use the brainstorming method you learned in class to begin to develop your group project idea. You should conduct at least two one-hour brainstorming session with your group members (you will start in class). You will report the complete list of ideas that your group generated, and then report the final project idea. Note that you will have time in class on 30 June to start the brainstorming. We expect you to meet outside of class as well to complete the assignment.

Another part of this assignment is getting to know your team and planning how you will work together over the course of the semester. This will help you structure your time, interactions, and expectations for the next several weeks.

## =====the assignment

**You will develop a mobile smartwatch application for the Moto 360 and Android platforms this semester.** Your design may be entirely driven through the smartwatch interface or a blend of watch and phone interactions. The smartwatch must be a key feature of the user experience. That is, it should be evident that without a smartwatch your application does not adequately support the task(s) you are addressing. You should focus on the semester's theme of "all things vacation, travel, adventure, and international culture."

This is a very **open-ended** prompt and should give you plenty of room to come up with a topic that is personally exciting to your group. Please use this freedom with caution. In addition to having a technology component, you should also select a concrete, well-defined target user group and task you want to support. The more concrete and specific, the better. Try to think out of the box. Don't think in a device-centered way, and don't think only of things that a smartphone smartwatch can do. Instead focus on the things that people do everyday while they have a mobile device with them. That will also give you a good handle on the set of target users. How

can a smartwatch complement or enable new methods of interactions and experiences? You got an initial feeling for this in the DESIGN 01 assignment. Or you could start with a set of target users and think of a theme that might improve their lives. Talk to some potential users to figure out what might motivate them.

**Smartwatch Sensors:** We are in the nascent period of smart watches. As such there are a wealth of applications to explore and you should have no problem brainstorming how existing smartwatches, including the Moto 360 can be programmed with new experiences. That said, this nascent period often means that many of the sensing and expressive behaviors you may desire may not be capable using today's hardware. As such we want you to open your brainstorm up, if you feel the need, to applications requiring hardware not currently on the Moto 360 smartwatch. To be clear, you will ultimately need to design and program your user experience on the 360. However, we will allow you to mock up a limited number of interactions around such sensing that is not provided by the hardware. For example, if your compelling application requires sensing galvanic skin response, you would still design all of the interactive touch points of your user experience and "mock up" the feeling of the experience around how the skin sensor is part of the design. What you cannot do: You cannot add so many sensors that the design is radically changed (i.e. it senses stress, skin hair growth, radiation, plankton detection, oh and it has a hologram projector and a karaoke pop up, and...). Any sensing you choose must be *near term and realistic* (i.e. you cannot embed a ghost or extra-terrestrial sensor or teleportation chamber).

While we want to enable you to include novel sensing in your brainstorming of ideas (1) it is required to find compelling and interesting applications and (2) you will want to check with us after you hand in this assignment as to the viability of the design and novel sensor selections. Happy innovating!

**Be ambitious, but realistic.** You have limited time to work on the project and the goal of the course is to iterate, test and improve users' experience of your design, not to produce the most elaborate experience. Some of the most successful apps have been conceptually simple. Make sure you're realistic about what can be done in a semester. This is an exercise in prototyping apps that could really be built, not an exercise in science fiction. Brainstorm! Give every idea a chance, no matter how strange at first...

=====details

**Your writeup should follow the outline below.** It will be graded using the writing guidelines detailed later in this document. Remember that less is more. Try to say what you need to as succinctly as possible, but don't skip important details.

- Group Name: Come up with a group name. This name may likely evolve over the semester but it helps with having an identity.
- Each team member's name
- Brainstorm:
  - A list of at least **50 numbered ideas** (aim for more) that you came up with during your brainstorming session. Each idea has to be described in one full sentence (don't just list an abstract title like "Cooking app", instead "Vegan Cookery: an application for vegan home cooks that helps them prepare recipes by using voice commands to step through recipe steps.")
  - You should be visual during your brainstorm - include **photos of sketches** (but also describe in text).
- Idea Selection:
  - The **three ideas** your group chose to work on and a short explanation of why the group picked them from amongst all the possibilities in your list. (one short paragraph - Note: this idea may develop and change later; it's your best idea at this time).
  - A longer **project description** for each idea:
    - Target User Group: Your target user group should be sensible (people you have access to) and not trivial (CS undergrads is not a challenge). Describe the user group in enough detail that you can easily separate the group from other types of people. Then include details about their needs and wants. Don't go too broad (everyone with a smartphone) - narrow down to a particular group that can be distinguished from others by their needs, practices, etc. (one paragraph)
    - Problem Description & Context: The problem description should be short and specific about the high-level goals of the project. The problem should be described in terms of user activities and situations where the problem

occurs, and what aspects of the situation might be improved with a technical solution. Avoid describing or suggesting a solution at this stage that will hamper your design thinking when you actually start solving the problem. What aspects of the situation might influence the problem solution? Think about location, time, environmental factors, etc. You were in class right? We talked about these (and many other) issues. Then think about aspects of the user group, their education, available time, motivation, values etc.

- What related or complementary solutions exist already? (one paragraph)
- Why is a mobile app a good solution for the problem? Convince us that there is unique value to have a mobile application here instead of a regular desktop or web application. (one paragraph)
- Why is a smartwatch a good solution for the problem? Convince us that there is unique value to having a smartwatch application here instead of using only a smartphone app. (one paragraph)
- Be sure to include sketches in your description of the project. Diagrams and figures will help you reduce the number of words you need to write and are likely to make your description clearer
- A **short validation** of each idea
  - Where did you find users to validate your idea? What did they say? You could try posting on a subreddit where your users might be (e.g., /r/shoestring for an app focused on budget travel), or sending questions to potential users you identify on the CouchSurfing.com website. You could also try finding interest groups on Facebook, or even UC Berkeley mailing lists (e.g., CHAOS) and posting your app ideas. Even if the idea is not interesting to the users you spoke with, you should still include it in your 3-idea selection and take it as a learning opportunity. (one paragraph)
  - You may wish to keep in touch with these users! Your next assignment will involve user interviews and observation sessions, so getting some contacts now will help you out A LOT later on.

## Ideas you must not propose

- **Your app must not target only college students.**
- Your **target group must not be overly broad** (e.g., all travellers). You should be as specific as possible (e.g., new parents travelling with their kids, veterans who want to visit war memorials, recent immigrants trying to learn the local language, middle school social studies teachers, etc). It's better to be too specific than not specific enough.
- Your app **should not already exist** in the Google Play store or the Apple App Store (though significant extensions and re-envisioning of existing types of apps with new interactions is fine)

## Your team plan

Please fill out the following team plan and include a PDF or copy/pasted text in your hackster submission. This exercise is to get you thinking formally about how you and your team can collaborate most effectively!

**Team Name:**

**Who are the Team Members?**

### Goals

What are our individual personal goals? What outcomes are we committed to achieve together? Are these scaled to our resources & constraints? What are our metrics for success?

### Roles

Who is responsible for which deliverables: those that require collaboration, subgroup work, individual work?

What are the deliverables each person is accountable for? Who does each person depend upon to be successful?

### Team Procedures

What decision process should we use? Consensus, majority rules, deference to expert, default to the loudest, or? How do we ensure effective meetings? How can we ensure we use meetings for key discussions and decisions, and offline for status updates? What roles do we need to ensure effective meetings? Scribe? Facilitator? Time Keeper? What else? How can we ensure great communication? How often face-to-face (as often as possible!); preferred technologies (Google docs, Piazza, etc.); Expectations for responsiveness; Best time to work (AM, PM, Weekends)?

## Relationships

What is the diversity on our team: discipline, learning style, cultural background, gender, work experience, adventures, dreams? How well do I listen to people I don't at first understand or agree with? How might we capitalize on our diversity to reach our goal?

=====grading criteria

## Brainstorm and Idea Selection (10 points)

<b>critterion</b>	<b>great solution (100%)</b>	<b>acceptable solution (50%)</b>	<b>poor solution (0%)</b>
did you list at least 50 ideas? <i>5 pts</i>	yes, 50+ ideas	no, ~30 ideas	no, <10 ideas
were you visual? <i>2 pts</i>	yes, sketches for >10% of ideas	few sketches	no sketches
did you explore a diverse set of ideas <i>and</i> build on ideas? <i>1 pt</i>	yes, both build and jump	limited build and jump	no build and jump
how novel and creative are the ideas? <i>2 pts</i>	many new and unusual ideas	some novelty, many apps already exist	most or all apps exist commonly

## Three Selected Ideas Descriptions (20 points)

<b>critterion</b>	<b>great solution (100%)</b>	<b>acceptable solution (50%)</b>	<b>poor solution (0%)</b>
target users: did you define and describe a concrete target user community? <i>4 pts</i>	yes, concrete and narrow	no, too broad	missing or ill-defined
problem descriptions: did you clearly describe the problem? <i>2 pt</i>	yes	some problems with writing or argument	no, poorly-written or missing
why mobile: did you make a clear case why the	yes	not entirely convincing	simple copy of desktop app

application is uniquely suited to mobile devices?

4 pts

why smartwatch: did you make a clear case why the application is uniquely suited to smartwatch devices?

4 pts

yes

not entirely convincing no

novelty and creativity: how novel and creative is the idea?

6 pts

novel and creative

limited novelty

many apps of this type already exist

validation: did you get feedback from potential users on your app idea?

2 pts

yes, feedback from potential users

got feedback, but not from potential user group

no feedback

## Team Plan (5 points)

5 points will be assigned if the team plan is complete and attached to the assignment.

### =====*submission instructions*

We will be using hackster.io for our submission again. Please make sure that after you create your submission you submit it to the correct assignment within hackster.io. We only need one submission per group (of course all group member names need to be part of the group submission). Make sure you include your team plan as a part of your submission.

When you submit group assignments, please include a few sentences documenting **who did what**. This can be as simple as “Tiffany created our sketches”, “Marco did the writeup”, or “Han and Janneke got user validation”.