In this activity you will design a user study to inform the design of your project prototype.

The study design will include the following components:

1. Study goals - what is it you want to learn from prospective users of the technology you are planning to prototype? (min 100 words)

We want to learn what exactly the struggles are when it comes to grocery shopping. Are they more bothered by the amount of money being wasted on groceries, or by the amount of food they throw out throughout the week? We also want to collect information on how much each individual spends on average at the grocery store, and whether or not they are comfortable with that amount of money. It is also important to know how many perishable products people are buying as compared to non-perishables because this can affect the amount of waste if it is not consumed in a short time.

1. Participants - what kinds of people do you need to study and how will you recruit them? Each group member's work on the study should involve approximately 3 hours of 'field time' i.e. 3 interview participants, 3 hours field observation, at least 6 questionnaire respondents, etc. (min 100 words)

We need to study young adults and college students. The easiest way to recruit people will probably be to just ask friends. Also we can ask people that are in any organizations we have involvement in. To get the perspective of young adults that aren’t in college I will probably ask some of my family members that fit into that category. Also I think it is easy to get more detailed answers and you can guarantee quality when you ask people you know. Studies involving complete strangers will work in the sense that there would be no bias. However, it will be hard to motivate random people to give us their time. Asking friends of friends might be the best way to eliminate any potential bias while also guaranteeing quality information.

1. Study methods - based on your reading of Interaction Design Ch.8 and the IDEO Field Guide pp.36-64, each group will select two (2) different ***primary*** user data gathering methods for the study. (min 300 words)
   1. For each method provide the name of the method and a reference identifying where it is found in the readings.
      1. The first primary user data gathering method we will be using is remote interviews. This is referenced in ID chapter 8, and is an effective method for easily collecting user data. The interviewer will propose a series of both open and closed questions, which will give a good spread of information for the interviewer to collect.
      2. The second primary method we will utilize is a survey, or questionnaire. This method will consist of a majority of closed, multiple choice questions. This will ensure that the most people answer the survey, as it provides an easier time for the person completing the survey. It will be distributed to the target audience of our solution, to ensure that people who care about the solution are actually completing the survey.
   2. For each method provide a rationale (reasons) for why this method is appropriate given the study goals.
      1. Remote interviews are a viable method to gather user data because of how convenient it is to gather so much valuable information. Interviewees are most comfortable in their own home, and remote interviews provide the luxury of being able to complete them from whatever location works best for them.
      2. Surveys are a great method to collect primary user data because they allow for a lot of information to be collected in a short amount of time. The survey could be sent out to 200 people, and even if only 20% responded, that would be 40 sets of responses. Gathering this data via interviews would take weeks, whereas a survey would allow for it to be collected within a day.
   3. As a group comment on how the two study methods will help you achieve triangulation in your study results.

Triangulation is the idea that one must collect different types of data to obtain a well-rounded understanding of the research being done. By having different types of studies, the group can understand both the broad and more specific views of the research. For example, remote interviews would give us very specific case studies of individuals that would use our app, where the survey would provide more general information that is important for the function of our work. Both types of studies provide us with very important information that is necessary to create a functioning product. Not only that, but surveys are efficient types of studies that can be done independently, allowing them to be completed concurrently to the live interviews that require both interviewers and interviewees.

1. Study Plan & Procedures (min 300 words)
   1. Describe the specifics of how you will undertake each of the study methods. For tackling both of the study methods It will be in our best interest to have a plan drawn out beforehand. For remote interviews we can make a list of open-ended questions to ask participants. For the most part these questions will help us understand our potential users, but also help us to refine our definition of the problem. We can then ask the interviewees if they have anything else they would like to say on the project matter. We will also ask them if they are ok with us using auto-transcription. For surveys, these will consist almost entirely of closed-ended questions. There will be a couple yes or no questions, but the majority of questions will be using the Likert Scale. There will be one last question that can be for anything the user would like to add.
   2. Who will you recruit for the study and how will you recruit them?

Because the focus of our study is on young adults and their concerns with groceries, we will recruit college students from Penn State and other universities, high school students and recently move out of dorms/houses. We will do so by reaching out to them as many of them are our friends. Additionally we will also try to reach students around campus that we don’t know. The study method applied to them will be the questionnaire as it is a less personal procedure.

* 1. Provide a timeline for the different parts of the assignment.

In order to have a successful study, as a group we need to all share the same understanding and ensure that we are all clear on the goals and results we want to achieve, this would take a day or less. After establishing a good foundation amongst us, we will begin the first part of the study which involves gathering the participants. In order to procure useful results, the interviewing and investigating participants should take us a week at least. Young adults are all over campus and make up most of our friends so fortunately we will be able to get results from different age groups and countries. While we do the remote interviews we will also use a questionnaire which will be sent out at the beginning of the week and closed by the end of it. We will finalize the study by analyzing the gathered information and coming to a conclusion on results.