Individual Homework. This part is to be done first as a group (to identify research tasks) and then individually (to perform the research tasks). The purpose of this assignment is to begin thinking about and doing background research for your project. For this homework do the following tasks:

1. As a team, identify areas you need to research for your project. This could be related to learning a new technology or programming language, learning about the application domain, exploring similar products/solutions, comparing possible development frameworks and APIs, looking at and trying out related systems, and so on. Write down the list of research tasks your team needs to do for your project. Be as specific as possible.

2. Assign at least one research task to perform for each team member. For each task, write down the desired product/outcome of the task. For example, “download and implement a simple program using the XYZ library” or “create a list of the major features of the ABC product”.

3. Each person should do a research task and write up their findings. This should be largely individual work, however, you may discuss and help each other as needed. The goal is to split up the research tasks to work more efficiently/productively as a team.

4. Each team member should hand in their research tasks and findings in class on the due date. and be prepared to share your results with your team. You will also need to turn in a copy of your results (i.e., your description of your task and findings).

Project Homework. This part should be done with your team. Work on and write up answers to the following tasks as a group and hand in a single copy on the due date.

1. Use GitHub to create a project repository. You will use the repository to store all of your project documents, source code, etc. For now, use the repository to store the write up from the research work above. Be sure to include your repository URL in your write up.

2. Determine standing, weekly meeting times for your team. Note that this is different than your weekly meeting time with your faculty advisor. You should find a standing, weekly meeting time to go over each team member’s progress for the previous week and plan each team member’s tasks for the next week. You should also find a standing, weekly meeting time where all team members can work together for a 3-4 hour (or more) time block. Note that you might also consider combining these times, where the first portion of the meeting is dedicated to progress and new tasks, and the remaining portion of the meeting is set aside to work together as a team.
Your team can use the senior lab for team meetings or you can reserve a conference room through the SEAS office. Turn in the meeting days, locations, and times you commit to as a team.

3. Next Wednesday will be the first CEDE meeting with your advisor, sponsor, and DAB member. Since this is the first time you will be meeting with your project stakeholders, you should use this as an opportunity to collect information about the project. As such, you must develop a set of questions as a team that you will ask at the meeting and that are specific to your project. You should first brainstorm as a team the questions you might ask (you should come up with 20 or more questions). Then, based on the brainstormed list, select the top five questions you would like to ask. In your discussions at the meeting try to gain a better understanding of the requirements of the system you are to build (e.g., who will be using it, how they will be using it, who you can talk to that is a potential user, whether there are specific languages, tools, APIs, systems you will need to use or integrate with, what the bigger vision is of the product, what the sponsor hopes to achieve by developing the product, and so on). Turn in a copy of both the big list of brainstormed questions and the final list of the top-5 questions you plan to ask. Also, store the questions in your GitHub repository.

**Reading Homework.** This part is to be done individually. Read and be prepared to answer questions on the following before the due date. Note you should do the readings in the order given below.

1. Agile Methods Ch. 1: The History and Value of Agile Software Development (Handout)
2. The Scrum Field Guide Appendix: Scrum Framework

To help you with the readings, you should be sure to focus on and understand the following topics.

- Be familiar with the four values of the agile manifesto.
- Be familiar with the twelve principles of the agile manifesto.
- Basic definitions / familiarity of the terms sprint, product backlog, sprint backlog, sprint review, and sprint retrospective.