# CSI2999: Sophomore Project Initial Guidelines

**Select Team and Team Leader:**

* By now you should already know whom your teammates are, their email information, and who is your team leader.
* During the first meeting of this class, each team has already set up a (rough) project idea. Team leader should be responsible for the following tasks:
  + organize weekly team meeting(s) to refine the initial project idea,
  + ensure team communication on a regular basis and assign tasks each week to every member in the team based on the refined project idea, and
  + team leader should also timely communicate with the instructor if problems are occurring with the team.

**Project Tools:**

Your team must agree on

* A programming language that all team members know
* Method your group will use to maintain version control of your team project software
* Methods used to track work accomplished include (but not limited to)
  + Trello
  + Google sheet
  + Excel
  + Track tasks board/
* Methods for weekly communications, for example
  + Google Hangouts
  + Face to Face Meeting
  + Google Docs

**Agile Scrum Method:**

Teams will follow a simplified Scrum method, explained in class on Sep 15, to manage their project. More importantly, students are expected to understand it from their own practices.

Initially each team will:

* Develop a project goal
* Develop **project requirements (in terms of user stories. )**

The sample of user stories is as below.

*: As a user, I want to select from a series of exercises, with duration and effort( can talk easily, can talk with effort, cannot talk) so that l can calculate my calories burned based on my weight and age, and add to the day’s total.*

Notice that a typical user story starts from a role description.

As a [role], I [want to] so that [I reach some goals].

* Create a product backlog consisting of the user stories
  + Remember that a backlog is a list of user stories with ranking.
* Define a Sprint schedule appropriate to the project, where for each Sprint:
  + Determine which items from the product backlog will be worked on during the Sprint
  + Break the user stories down into programming tasks and assign to team members for the Sprint
  + Hold frequent meetings throughout the week to track progress and problems
  + Make sure to document and test the code
  + Track the work being done by each team member so it can be reported at the end of the semester
    - At the end of each Sprint make sure to have a subset of working, integrated code
  + Each team will provide a brief demonstration of the code at the mid-term presentations
    - At the end of each Sprint update the team’s tracking tool and make changes to Product backlog if necessary
    - The instructor may ask for a copy of it or picture of it at any of the class meetings, so each team needs to keep it updated.

**Project Selection:**

Each team must develop a piece of software that will be used almost exclusively by nontechnical users. The precise details of this software are up to each team to decide. However, it must meet the following criteria:

* It must be complete by the end of the semester
  + Do NOT pick a complicated project that needs more than the time budget you have to finish (accurately evaluating project scale is an important skill!)
* It must have a well-designed user interface
* Each team must identify a high-level goal for their project (see below for more details)
* Each team will provide a version of the software that can be run on a PC using free software like NetBeans, Android Simulator etc., The team must provide instructions on how to run the software.

**Initial Project Presentation Requirements:**

Each team must create and present a PowerPoint presentation that contains the minimum material (in this order)

* Application Name
* Application Goal, written from the User’s standpoint
  + What is the purpose of the application? What will it bring to the user?
  + Why would a user want to use it?
* Application Requirements(backlog)
  + Describe the functionality that the product will provide from the user’s point of view.
  + This list will be complete enough so that the class has a general understanding of what the application or game will do.
  + The instructor expects to see at least 5 requirements from the user’s point of view.
* Programming Language & Tool
  + The programming language the team will create their project in.
  + Tool the team will use to track their project update.
  + Way of communication.

**Initial Project Report Requirements:**

Each team must submit a report on their project (after the approval of the instructor) that contains the following:

* Team member names
* Team leader name
* Project name
* Project goal
* Requirements to archive the goal
  + This is optional
* Product backlog of the requirements written in the form of user stories
* Initial Sprint
  + Sprint goal
  + User stories assigned to this Sprint
  + Each user story must be broken down into programming tasks and assigned per person (please give their name)
* Programming language chosen
* Project tracking tool –task track board/tool/ screenshot/
* Team communication method and frequency
* Discuss potential risks during the project and contingent plans for the risks
* List any references (e.g., books, papers, website, videos etc.,) used in the project description
  + MORE details will be introduced.