**CSC 4350/6350 SOFTWARE ENGINEERING**

**Assignment #1**

**Spring 2019**

**due Friday, Feb 1st, 11:59 pm**

**(No 24 hours’ late submission for this assignment)**

**Objective:** Learn how to work in group**,** improve your-- decisions making and planning, critical reading and writing, scheduling and task identifications; Requirements Engineering-- understand the concepts of user and system requirements

**Important Note: (read this carefully please)**

As you will find out, group work isn’t always easy—team members sometimes cannot prepare for or attend group sessions because of other responsibilities, and conflicts often result from differing skill levels and work ethics. When teams work and communicate well, however, the benefits more than compensate for the difficulties. One way to improve the chances that a team will work well is to agree beforehand on what everyone on the team expects from everyone else. Reaching this understanding is the goal of the assignment.

**Team Policies:**

* + - You are all expected to cooperate.
    - Do the required individual preparation as there is a grade for individual work.
    - Agree on a common meeting time and what each member should have done before the meeting (readings, taking the first cut at some or all of the assigned work, etc.)
    - A team coordinator:
      * interfaces between the instructor and the team.
      * turning in the documents with the names on it of every team member who participated actively in completing it. **Only the team coordinator is responsible for submitting the project assignment.**
      * review returned assignments and make sure everyone understands why points were lost and how to correct errors.
      * bringing team questions to the instructor coordinator
      * checks with other team members before the meeting to remind them of when they will meet and what they are supposed to do.
      * **with the help of the team members, identifying, assigning, and scheduling tasks to the team members**
      * monitoring and reporting the progress of the assigned tasks
      * coordinator team members
* Consult with your instructor if a **conflict** arises that can’t be worked through by the team.
  + Dealing with **non-cooperative team members**:
  + If a team member refuses to cooperate on an assignment, her/ his name **should be included in the tasks table with “she/he did not do or partially did the assigned task”** on the note column and as a team you should assign 0%, 25%, 50% or 75% grade based on her/his contribution for that assignment.
* If the problem persists, the team should meet with the instructor so that the problem can be resolved, if possible, otherwise, grade of zeroes will be assigned for the remaining assignments.

**TASKS:**

- Find your team in the email sent out on 1/22/2019.

- The instructor has assigned a team coordinator for every group.

- The team coordinator should contact the team members and discuss when and where to meet to discuss

the following tasks.

- The team coordinator role will be rotated for each assignment.

1. **Planning and Scheduling (**not for the whole project, just for this assignment**):**

* Choose a name for the team
* Create a table and have every member’s name, assigned task or tasks, etc. **Ex**.:

**Work Breakdown Structure**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Assignee Name** | **Email** | **Task** | **Duration (hours)** | **Dependency** | **Due date** | **Note** |
| Awad Mussa | amussa@gsu.edu | Technical writing (getting the report ready) as described in the assignment | 5 hours | Slack, GitHub, and the video (these have to be done first) | 02/22/18 | Must be ready 30 hours before the due date |
| James Siemen (**coordinator**) | exmple@gsu.edu | Creating the github repository as described in the assignment | 2 hours | none | 02/19/18 | Please send everybody the link and ask them to login and write their member introduction: name, interest, expectation from this project |
| Michael Jorden | exmple@gsu.edu | Did not do the assigned task | Did not do the assigned task | Did not do the assigned task | Did not do the assigned task | Mike did not do it.  0% grade. |
| Alex Brian | exmple@gsu.edu | Partial Contribution | 0.30 minutes | none | 02/20/18 | James did the rest. 25% grade. |

1. **Communication and Collaboration:**
   * **GitHub**:
     + All project documents: doc, pdf, and code related files must be kept at GitHub so that all team members can have access to them.
     + Basic introduction to GitHub can be found here: <https://guides.github.com/activities/hello-world/#intro>
     + Write the project title and the team members’ names in Readme file under the Code Tab.
       - Submit a screen shoot of your readme page.
     + Create a new project using the Project Tab and name it CSC-SWE- group name. Use the: To do; In progress; and Done columns. Under these columns, create your own cards and have the assigned tasks and their status (in progress and done) written there as a list.
       - Submit a screen shoot of your project page.
2. **Teamwork Basics:**
   * Summarize the following sections in the Teamwork Basics documents using your own words and must provide examples using personal experience (at least two group members) in this class or other classes or internships:

* Ground Rules: Norms 1 to norms 5
* Hints for Handling Difficult Behavior
  + - Hints for Handling Group Problems

**Note**: TEAMWORK BASICS documentcan be found in the email that will sent on 1/23/19 along with, Project\_A1.

1. **Project Topic:**

* Choose a project from the suggested topics.
* Each project must adhere to the following constraints:
* Project must be substantial enough to justify a group of seniors working for an entire semester: 3K-5K is expected.
* The project must be able to be installed, run, and tested by the instructor
* The system must be easy to test; thus, interactive systems are required.

1. **Problem Statement:** (Overall Project Description, ***user requirements***)

* First, read Ch4 page 88-90.
* What is your product, on a high level?
* Whom is it for?
* What problem does it solve?
* What alternatives are available?
* Why is this project compelling and worth developing?
* Describe the top-level objectives, differentiators, target customers, and scope
* of your product.
* What are the competitors and what is novel in your approach?
* Make it clear that the system can be built, making good use of the available resources and technology.
* What is interesting about this project from a technical point of view?

1. **System Requirements**

* Describe at a very **high level the system's architecture**, identifying the components/modules that will interact.
  + Use context model
  + See Ch5: Section 5.1 and Figures 5.1

1. **Report:**

* A title page consisting of the class, semester, group name, group members, date
* All pages must be numbered.
* All text must be produced on a word processor.
* All pages must be burst.
* Team Description: a table showing the group name, members and their assigned roll and the group coordinator.

To develop your team capabilities & assignment:

* each team member will write a brief resume emphasizing
  + computer science education,
  + a computing skills inventory (languages, hardware, packages),
* experience in any kind of work,
* distribute it among the team members.

Note: This resume will also be an important input to estimating the project and will be included in the project documentation.

* Resumes of each group members must be included with the report
* Report sections:
  + - Planning and Scheduling
    - Teamwork basics summery
    - Problem Statement
    - System Requirements
    - Appendix: Have all the screen shoots and links in this section
* While preparing the report, pay more attention to the following criteria:
* Analysis.
* Description.
* Understanding.
* Preparation.
* Completeness.
* Correctness.
* English Grammar.
* You will submit the report electronically as a PDF file:
  + The file you submit should be named **coordinatorName\_Groupnumber.pdf to instructor email address** [**amaradapuveravenkat1@student.gsu.edu**](mailto:amaradapuveravenkat1@student.gsu.edu) **by 2/1/2019 11:59 pm.**
  + One submission per team --- mailed by the team coordinator
  + Only the team coordinator should submit the report
  + Individuals will only get points if they are in a group that has been submitted.
  + You (team coordinator) will also print out a copy of the report and submit it in person to the instructor during the office hours: (**on Monday Feb 4th during the TA office hours 11:00am to 12:00 pm).**

**Note:** Projects topics are going to be assigned during the class.

The report should be in the following order

* Section 1
  1. Name of the project
  2. Semester
  3. Group Number
  4. Team members
  5. Date of Submission
* Section 2: Brief resumes
* Section 3: Scheduling and planning table for A1
* Section 4: Problem Statement --- Answer all or most questions in section 5 of this document
* Section 5: System Requirements --- Follow the instructions in section 6 of this document.