Project Timeline:

Project proposal due: Sun, Feb 14, 11:55pm

Proposal presentations:
- Wed, Feb 17 - Groups: 9, 5, 10, 1
- Mon, Feb 22 - Groups: 6, 3, 15, 11
- Wed, Feb 24 - Groups: 2, 12, 16, 7
- Mon, Feb 29 - Groups: 8, 14, 4, 13

Project Midterm report: Fri, Mar 11, 11:55pm

Final project report: Fri, Apr 22, 11:55pm

Final Project presentations:
- Mon, Apr 25 – Groups: 5, 6, 11, 14
- Wed, Apr 27 – Groups: 13, 12, 9, 8
- Mon, May 2 – Groups: 3, 2, 10, 16
- Wed, May 4 – Groups: 7, 15, 4, 1

Project Proposal (10% of your grade)
The goal of the project proposal is to help the team concretize and clarify their ideas before they start working on the development process of their preferred project. The proposal will also help the instructor identify possible problems with the proposed idea or development approach, and suggest solutions. The length of the proposal document is up to each team, but should not exceed 10 pages.

The proposal should try to answer the following questions:

- **Definition:**
  - What is the problem you are solving?
  - Why is it a problem?
  - What solution exists today?
  - How your proposed solution is better or different than what exists today?
  - Why is it interesting and who would use it when solved?

- **Requirements:**
  - How did you go about gathering the requirements?
  - What are the requirements?
  - What work do you plan to do in the project?
  - What do you expect to submit/accomplish by the end of the semester?
    - This is where you state what exactly your projects are going to do. This could be a list of features that you are planning to implement and plans to evaluate them. We will use this list to determine how well you have delivered what you promised.

- **System:**
  - What is your proposed solution?
  - What technologies are you going to use? Have you looked into similar technologies that exist? Are you sure that you are not reinventing the wheel?
    - Provide references to existing similar or related products.
  - What data will you use, if any?
Which algorithms/techniques/models do you plan to use/develop? Be as specific as you can!

What human factors or human-computer interaction aspects will you address?

- Evaluation plan:
  - Details of your evaluation plan.
  - Who are your users?
  - How will you test your idea?
  - What evaluation techniques are you going to use?
  - How will you measure success?

**Project Proposal Presentation (10% of your grade)**

The presentations will serve the purpose of allowing the rest of the class get an idea of each team’s project. Presented ideas may help other teams with their own project, but also the presenting team can get useful feedback from the audience, regarding their project. The project proposal presentation can be based on the proposal document, but should include more visuals and less text. Prepare a 10-15 minute presentation, which will be followed by 5 minutes of questions and comments from your instructor, the TA and your classmates.

Tips for creating good presentations:
http://guides.lib.umich.edu/content.php?pid=345460&sid=2831071

NOTE: Presentations will be graded at 50% weight by your classmates and 50% by the instructor, based on a grading rubric provided by the instructor.

**Project Midterm Report (10% of your grade)**

By the time of the mid-term report you should have completed at least 30% of your project work. The mid-term report is a draft of your final report, but without all experimental results and analysis.

You should submit:
- Introduction to the problem you are working on, why is it important and what makes it challenging to solve. (You can copy some things from the proposal for this)
- How is the team managing task delegation to team members? Who is doing what?
- Description of challenges you have encountered and how are you planning to tackle them?
- Description of possible interesting phenomena/statistics/data collected so far.
- Description of features implemented/or planning to be implement.
- Description of algorithms and tools used. Provide references to possible existing tools/libraries that you may be using, and briefly describe each one.
- Description of the parts of the project that have been completed.
- Indicate the parts which have not been completed yet and how do you plan to accomplish them for the final project report.
- Create a Gantt Chart showing the different tasks, start and completion times for each, as well as interdependencies between tasks. Gantt charts can be created using the “Microsoft Project” software, or any other similar software of your preference.
Final Project Report and Source Code (30% of your grade)
Your final report should describe your final product and a summary of individual contributions by each team member.

During grading we will assess your work based on:

- Introduction/Motivation/Problem Definition (10%)
  o What is it the problem you are solving?
  o Why is it interesting?
  o Who would use it when solved? And how would it be used?
  o Why is it challenging?
  o What are the shortcomings and limitations of the existing work?

- Related Work (10%)
  o How does your work relate to those done by others in similar projects? Provide a citation to the papers you have read, explain briefly what each paper is about, what are the pros and cons of the approach, how does it compare and contrast to your approach? Did your method improve existing algorithms on the same dataset?

- Data Collection/Annotation (20%)
  o Describe the data you have used in your experimental study
  o Show the number of examples you have used to conduct your study

- Method Description (20%)
  o Provide a detailed description of your algorithms/methods, the features used, and human factors considered or addressed

- Results and findings (30%)
  o Describe how did you evaluate your solution
  o What evaluation metrics did you use?
  o Describe a baseline system
  o How much did your system outperform the baseline?
  o Were there other systems evaluated on the same dataset? How did your system do in comparison to theirs?
  o Show graphs/tables with results
  o Error analysis
  o Suggestions for future improvements

- Style and writing (10%)
  o Writing, grammar, organization and neatness.

Peer Evaluation
Out of the 30 points of the final report, 10 points will come from peer evaluation within each group. Your individual effort will be assessed by the other members in your group. The averages from the following questions will be used to determine this portion of your grade.

  o Member helped brainstorm project ideas and contributed to the proposal (2%)
  o Member helped develop the final prototype and any previous iterations (4%)
  o Member helped prepare and demonstrate the presentation materials (2%)
  o Member was easy to schedule and attended all the meetings. (2%)

Final Project Presentation/Demo (10% of your grade)
The goal of the presentation/demo is to give you a chance to share with your classmates the exciting problem you have been working on, how you solved it and the interesting findings you discovered. Prepare a **15-minute** presentation, which will be followed by 5 minutes of questions from your instructor, the TA and your classmates. Part of the presentation, should also be a short Demo of the system you have developed.