CS 312 - Final Project
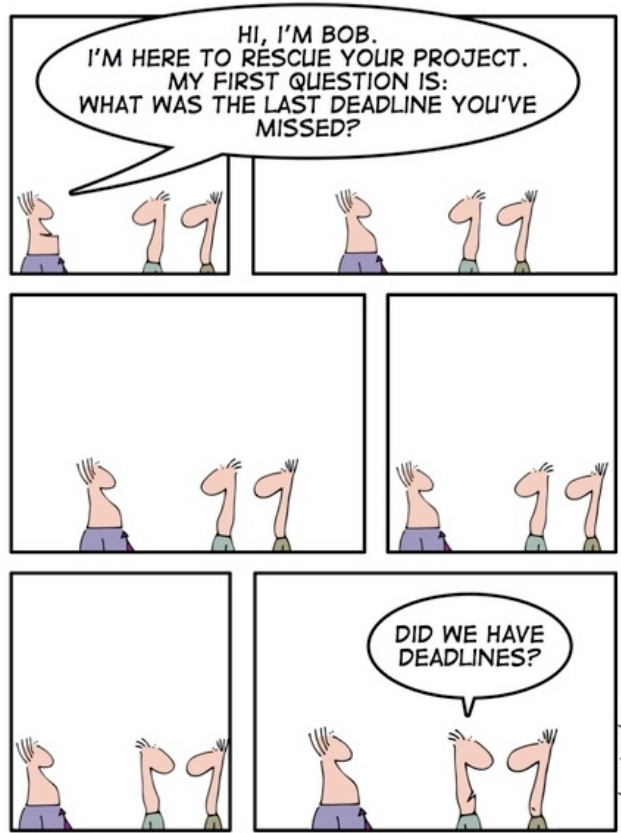

http://www.datamation.com/entdev/article.php/3699661/Tech-Comics-How-to-Rescue-a-Project.htm

For your final project you will be working on a team of 5-8 people to develop a working software product. You will be evaluated based on:

- The quality and ambitiousness of your team's final product

- The demo of the final product

- A team write-up

- Individual work including status reports, a tech talk and an individual final report

- Your participation in the group

1 Project Requirements

You will be given a fair amount of freedom in what you actually implement (though I may strongly suggest certain features as things progress). There are a few constraints that your project must meet:

- Your project must have a web interface and use rails

- Your project must store some data in a database

- You must use Git to manage your project (more details on how to do this soon)

- Your project must be fully tested using unit tests (don't leave this until the last minute)

- Your code must be properly documented (don't go overboard, though)

2 Schedule

We will be following scrum agile project management and will do three sprints through the end of the semester. Most of the project management work will be done in class, however, you will have to meet as a team for 15 minutes every weekend for a sprint stand-up meeting.

The following is the schedule through the end of the semester:

Date	
Before 4/5	Generate initial backlog
4/5	user story scoring, spring planning
4/7 or 4/8	sprint stand-up meeting
4/10	sprint stand-up meeting
4/12	sprint stand-up meeting
4/14 or 4/15	sprint stand-up meeting
4/17	demo, sprint retrospective
4/19	sprint planning
4/21 or 4/22	sprint stand-up meeting
4/24	sprint stand-up meeting
4/26	sprint stand-up meeting
4/28 or 4/29	sprint stand-up meeting
5/1	demo, sprint retrospective
5/3	sprint planning
5/5 or 5/6	sprint stand-up meeting
5/8	sprint stand-up meeting
5/10	sprint stand-up meeting
5/12 or 5/13	sprint stand-up meeting
5/14	end of final sprint
~~5/21~~ 5/18	demo and presentation: 2-5pm

Due dates:

- TEAM

  Final code: 5/15 6pm
  Team write-up: 5/18 6pm

- INDIVIDUAL

  Sprint status reports: *1)* 4/19 *2)* 5/3 *3)* 5/15
  Individual write-up: 5/18 6pm

3 Team Requirements

- **Final code**

  Submit by 5/15. This can be accomplished by e-mailing me information regarding your git repository.

  Your final version *must* include a README file in the base directory that gives an brief overview of the code and the directory structure. In particular, make sure you note where the unit tests are if they are not in an obvious location.

- **Team write-up**

  As a team, you must put together a maximum three-page write-up summarizing your project. This final report must discuss the following:

  - What was the original project plan/scope? How much of this did you accomplish?
  - What were some of the challenges of the project?
  - What were some of the challenges/benefits of the scrum process?
  - What things did you change in your process based on your sprint retrospective?
  - What was your team's "velocity" by the end? Specifically, how much work could your team accomplish in a sprint (state this in whatever terms you were using to score user story difficulty). Was this consistent over the sprints?
  - Include an appendix (which will not count against your page limit) with:
    * For each of the three sprints, the sprint user story commitment including the difficulty, that is, for each sprint what you planned to do during sprint planning.
    * For each of the three sprints, what user stories you finished by the end of the sprint.
   * Any remaining backlog items that you didn't get to.

- **Final demo and presentation**

  Your team will give a maximum 30 minute presentation during finals week. This final presentation is partially about what your final working product, but you should also spend some time commenting on your team's experiences with scrum and working together. Your presentation should include:

- A demo of your finished project. Your demo should walkthrough the different features of your product both from the user perspective as well as any behind the scenes features (e.g. fast/novel algorithms, etc.).
- A discussion of the major challenges in the project. These can be technical (though keep these brief) as well as challenges with working in a team environment.
- Comment on your scrum process:
  * What are some pros/cons of the process from your team's perspective?
  * What was your velocity? Did it change over time?
  * What things did you change from sprint to sprint because of your sprint retrospective?
- Lessons learned. Things you would have done differently or interesting things you learned from the experience.
- Future work. It's unlikely you finished everything you wanted to for the project. If you had more time, what else would you add. Will anyone be continuing to work on the project?

You must use some slides or other visual aids at some point in your presentation. Please make sure you decide beforehand who will be presenting what material and I'd encourage you to do a dry run beforehand to make sure you have all the kinks worked out.

4   Individual Requirements

http://loldailyfun.com/wp-content/uploads/2012/02/Final-Project-Comic.jpg
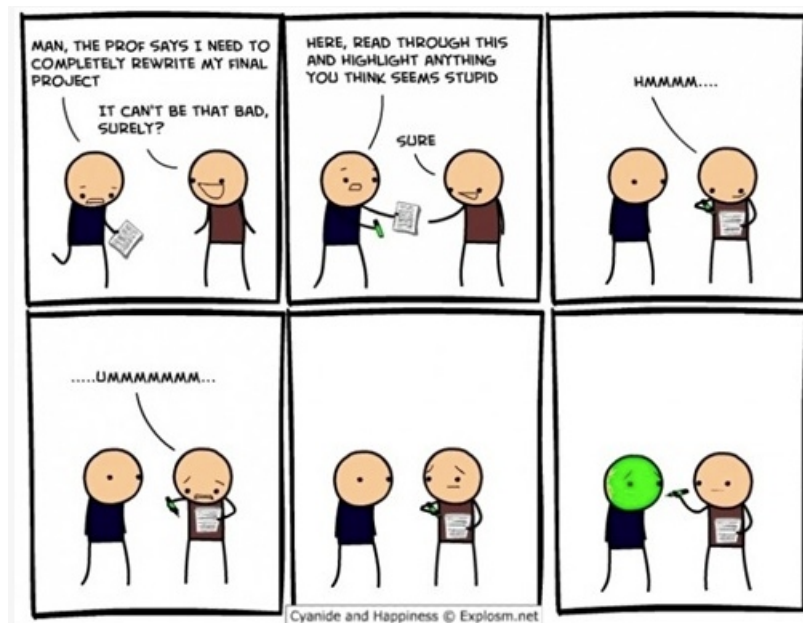
As an individual, besides attending all meetings and regularly contributing to the project, you will be required to do a number of additional things for the final project.

- **Tech talk**

  As you work on your projects it is likely you will learn something interesting that you didn't know before. The goal of a tech talk is to share this information with the rest of the class.

  A tech talk is a 10-15 minute talk performed as a pair during class that discusses something related to the content of the class (or your project). You must use some visual aid (e.g. slides, code examples, etc.). I will setup a sign-up sheet for picking the class date for you to perform your talk. Your partner does not necessarily have to be someone in your project group.

- **Sprint status reports**

  At the end of each sprint, you must submit online before the sprint planning for the next session a short status report on your accomplishments during the sprint (the end of the last sprint is Monday, 5/14). The status report must include the following:

  - Name and sprint number (1, 2 or 3)
  - A short summary (i.e. 1 paragraph) of your accomplishments during the sprint
  - A log for each stand-up meeting consisting of your accomplishments and the number of hours worked between the last stand-up and that one. You should be keeping this log up to date during the sprint. I realize that your time commitments vary from day, so variation in time contributed is fine. However, I will be looking for consistent effort and progress on the project.
  - Any issues you had for the sprint. (If you had none, state this.)

- **Individual write-up**

  You must submit a maximum 1.5 page summary of your overall contribution and experiences on the project. Your write-up must answer the following questions:

  - What were your overall contributions to the project? You can look back at your sprint status reports for a reminder, but this should be a higher-level summary.
  - Describe your role in the team.
  - What were some of the challenges you encountered during the project?
  - What were some of the things that you think you did particularly well at during the project? These could be technical contributions or could be project coordination, etc.
  - Provide some feedback on your teammates:
    * For each teammate, give a score of how much you felt they contributed from 1 to 10 (you may put a ? if you don't have any comment)
    * Were there any people that put in an extraordinary effort? Were there any people you felt didn't do their fair share?
    * Relative to your teammates, do you think you did more work, less work or about average?

5 Grading

Your grade for the final project (which is worth 50% of your overall class grade) will be determined as follows:

Activity	Percentage
overall project quality	40%
team demo	15%
team write-up	10%
tech talk	10%
sprint status reports	15%
individual write-up	10%

The items will be graded as follows:

- **overall project quality**

    - Does the project meet the specifications above (git, unit testing, etc)?
    - How ambitious was the project?
    - How complete is your project?
    - How does the finished project look/perform?

- **team demo**

    - Motivates the project
    - Covers all of the features
    - Organized and well-prepared
    - Presentation style
    - Quality of the slides/presentation material

- **team write-up**

    - Does the write-up meet the specification above?
    - Spelling and grammar
    - Clarity and organization
    - Quality of analysis and answers

- **tech talk**

    - Relevance of information taught
    - Organized and well-prepared

- – Presentation style
- – Quality of visual aid

- **sprint status reports**

  - – Meet specifications
  - – Work accomplished during the sprint

- **individual write-up**

  - – Answers all of the questions
  - – Clarity and organization
  - – Spelling and grammar
  - – Thoughtfulness