



GEEN 1400: Computing in Social Networking Sites

Reverse Engineering Assignment

Use the assignment to complete the assignment.

Date Out: 17 January 2009

Date Due: 29 January 2009

In preparation for this assignment, please read Chapter 4: Reverse Engineering from the textbook.

For this assignment, students will work in groups of 4-5 to reverse engineer a social networking application of the group's choosing. All social networking applications must be approved by the instructor by 3pm on 22 January 2009. During this exercise, students will acquire skills in documentation, evaluation, collaboration, and learning by example. Students will have 3.5 laboratory periods to work on the reverse engineering assignment. Students are encouraged to work on the project outside of class and consult external resources (e.g., articles, books, websites, people).

Deliverables and Grading

Deliverable	% of Grade	Due Date
Approval of Social Networking Application	1%	22 January 2009 by 3:00pm
Project Report	50%	29 January 2009
Project Presentation	49%	29 January 2009
Peer Review	% of the total grade the peer review yields	30 January 2009

An example of grading: Darla's group gets 1% for getting their application being approved on time; 45% on their project report; and 48% on their project presentation for a total of 94 points. Unfortunately, Darla missed two after class group meetings and her teammates did not appreciate her absence. Her total peer review grade was an 80%. Thus, Darla will receive receive a 75% on this assignment ($94 \times 80\% = 75\%$). Meanwhile, her teammate Jaime received a 110% on her peer review - in this case, her peer review grade will be 100% and she will receive a 94% on this assignment.

Project Report

The project report should be written in grammatically correct English (no chat/texting spelling). Bulleted lists should be used sparingly and only when appropriate. The document should read as if one unifying body wrote it instead of 4-5 different people wrote it - thus someone in the group will have to be the editor of the document to ensure it is readable. Students are encouraged to use the writing resources discussed during the first week of class and avoid needless words (see <http://www.bartleby.com/141/strunk5.html> #13).

Outline of Project Report Sections

1. Introduction
 1. What is the application?
 2. Why did you chose the application?
 3. How does it meet the criteria of reverse engineering (page 20 in text).
 4. List the goals for performing the reverse-engineering study; i.e., what will be learned from the study?
2. Background
 1. Describe if the application borrows from anything (e.g., physical artifact, non-social networking application, game, etc.).
 2. What need does the application fulfill? Who is the target population?
 3. Were there any other iterations of the application you can find (e.g., if you find the version number - the higher the version number indicates the more iterations).
3. Evaluation Method
 1. Describe the procedures used to address the goals from 1.3.
 2. How were the application and its components (e.g., did it have a mobile phone component?) evaluated.
 3. Document test data obtained.
4. Application Details
 1. Describe (use drawings, photos, screen shots, videos, code snippets, etc.) the key components of they application and how they function.
5. Results
 1. Describe what was learned about this application and its functionality.
6. Future Work
 1. Provide suggestions for changes that would improve the application.
Examples:
 1. How to improve the functionality of the application?
 2. How to improve the scalability?
 3. How to improve the usability/interface?
 4. How to improve the accessiblity for people with disabilities?
 2. Describe what you would change if you could design and implement this application from scratch.
7. Marketing
 1. Include either an advertisement (in print or on a social networking site) or a video or radio commercial that markets the application to an identified target group of potential users.

8. Resources

1. Who or what did you consult to reverse engineer this application? What did you find out from them? How did it help you?
2. What other resources other than the ones listed in this assignment did you use? How did they help you? What did you find out from them?

9. References

1. If you use any references (e.g., books, articles, websites), reference them here in APA, ACM, or IEEE format.

Project Presentation

Each team must present their application, evaluation method, results, future work, and marketing material in anyway they seem fit. If the team would like to use any multimedia (e.g., powerpoint, google doc presentation, video, etc.), they must upload the file or link to the course Google Group by class time on 29 January 2009. Multimedia presentations are encouraged to engage the audience. Teams will have 10 minutes to present and 2 minutes for questions.

Peer Review

Each student must submit a peer review form (available here: <http://spreadsheets.google.com/embeddedform?key=prbwm649bnEn8wfEZ-SF5HQ>) to evaluate themselves and their teammates. If all teammates on the team worked together and did the same amount of work, then the student should give all of their peers a score of 10. The 1 through 10 Likert scale should be thought of as a 100 point scale (e.g., if you rate someone a 7, they would get a 70% in your opinion).

Resources

Here is a brief list of resources and people who may be able to assist in understanding how the application works. If you use any of these resources or speak to anyone outside of your group, please reference them in your report as a reference. If you find any additional resources, please list them in a resources section of your report. The team with the most *legitimate* and *useful* resources for dissecting and identifying how applications work that are not listed below will get extra credit.

Books

- E. Butow and M. Bellomo, *Amp Your MySpace Page*, 1st ed. McGraw-Hill Osborne Media, September 2007. [Online]. Available: <http://www.amazon.ca/exec/obidos/redirect?tag=citeulike09-20&path=ASIN/0071490728>
- N. Gerakines, *Facebook Application Development (Programmer to Programmer)*. Wrox, May 2008. [Online]. Available: <http://www.amazon.ca/exec/obidos/redirect?tag=citeulike09-20&path=ASIN/0470246669>
- W. Graham, *Facebook API Developers Guide (Firstpress)*. Apress, March 2008. [Online]. Available: <http://www.amazon.ca/exec/obidos/redirect?tag=citeulike09-20&path=ASIN/1430209690>

Websites

- <http://developer.myspace.com/community/>

- <http://developers.facebook.com/>
- <http://code.google.com/apis/opensocial/>
- <http://www.w3.org/MarkUp/>
- <http://www.w3.org/WAI/>
- <http://www.w3.org/Style/CSS/>

Faculty Members

Here is a list of faculty members who may be able to give you some insight into the background knowledge or how to create your chosen application. The areas of these faculty members are also hints into the backgrounds necessary to create a social networking application (use the assignment to do the assignment). However, to meet with these faculty members, you will need make an appointment with them or go to their office hours (contact information and office hours available here: <http://www.cs.colorado.edu/people/faculty/byarea.html>). It is also strongly recommended that you know about their area (check out their website or lab website - research area) and come prepared with a specific question (do not just show the application and ask how they would make it). An example of a specific question would be, "I saw on your research website that you created a web application that did X, could you tell us more about how that application was made?".

- Gerhard Fischer
 - Lab: L3D (DLC 170)
- Clayton Lewis
- Ken Anderson
- Roger King
- Systems Lab (<http://systems.cs.colorado.edu/mediawiki/index.php/People>) (ECCR 1B54)
- Christine (Qin) Lv
- Michael Main

Timeline

Date	Goals
20 January	<ul style="list-style-type: none"> • Meet with team • Identify possible social networking applications
22 January	<ul style="list-style-type: none"> • Get social networking application approved by 3pm on 22 January 2009 • Identify background literature/what is the application borrowing from • Brainstorm testing protocol
27 January	<ul style="list-style-type: none"> • Test application • Identify what is needed to create the application (meet with other faculty members or students if necessary) • Synthesize findings and brainstorm marketing material
29 January	<ul style="list-style-type: none"> • Presentation Day • Submit Report
30 January	<ul style="list-style-type: none"> • Submit Peer Assessment