

PROJECT PART A

Yuqun Zhang

CS304 Software Engineering

Summary

- Use the skills acquired inside and outside of the class and labs to create a working web application/video game out of the course projects.
- Purpose:
 - Well, it's a big chunk of your grade...
 - Working on this project should be training on how to go about approaching a design project
 - The project should yield real **results**
 - Identifying a need
 - Designing a solution
 - Building a working prototype of this solution
 - Identifying key issues around taking prototype to a useful product

Project A Deliverables

- Proposal (max 6 pages, 11 pt font, including figures)
 1. Project title
 2. Executive abstract (50-200 words)
 3. Team (4 to 5 students)
 4. Description (see later slides)
 5. Upload to Sakai by 12am, October 24 (late submission would lead to reduction of your final grades which are determined by our mood)
- Presentation

Description: Motivation

- What is the problem?
- What is your vision for solving the problem?
- What are your solutions?

Description: Feature Description

- Start with 2-4 user “stories”
- Formalize with UML use cases
- Mockups: You could use balsamiq (or Google docs, or Adobe Fireworks, or Visio, or something of that sort)

Description: Requirements

- Functional requirements
- Don't overlook the non-functional requirements
 - Performance
 - E.g., response time, accuracy of results, etc.
 - Storage requirements
 - Cost per user for deployment

Description: Design Document

- **Architecture**: block diagram, flow charts, class diagram, database schema, etc.
- **Timeline**: key dates, effort required in number of hours, roles
- **APIs, services**: what can you exploit to get done fastest

Description: Feasibility

- Things that may lead you to fail
 - Lack of familiarity with APIs
 - Unable to deliver on performance
 - Cost excessive
 - Existing projects
 - Too many features (prioritize)
 - Third party APIs/service may not be reliable

Useful APIs and Services

- HTML/CSS, HTML Forms, Java URL, Java Sockets, Android UI, Sqlite libraries
- Java Jetty, GSON, Java Entities, jquery, opencv, Django, GWT, Quartz, htmlparser, Junit, iText, Java Runtime

Technologies

- **Tools**: SVN/Git, Google Docs, Java, IDE, ANTLR (NLP), Junit, Selenium, Lucene
- **Lirbaries**: log4j URL, Servlet engine, HTML DOM Parser, JavaScript, UI libraries, AdWords, FBAds, OpenSocial, GNIP
- **Services**: storage, search, computation

Samples

- <http://bit.ly./apt2012>
- <http://atsnax.com>
- <http://puzzleme461.appspot.com/>
- codewithfriends.tk
- WhoHasItAll.com
- <http://walletsave.herokuapp.com/>

Presentation

- October 14 to 15
- Slides ready by 10pm, October 13
- 5 to 10 mins presentation, 1 min Q&A
- Every group member needs to be present during presentation.
- You need to cover (inclusive but not restricted)
 - Feature description (maybe some UIs if you already have them)
 - Techniques
 - Timeline
- You should make your slides look pretty

QUESTIONS?
