PROJECT PART A

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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 (<=5 students)
4. Description (see later slides)
5. Upload to Sakai by 8pm, October 9 (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 “silver bullets”?

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
- **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 10 to 11
- Slides ready by 8pm, October 9
- 5 to 10 mins presentation, 1 min Q&A
- Every group member needs to be present during presentation.
- You need to cover
  - Feature description: some UIs, maybe
  - Techniques
  - Timeline
- You should make your slides look pretty

QUESTIONS?