

How to Survive the SE3A04 Project

SE3A04 – Tutorial

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Teaching Assistants

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How Will the Tutorials Work?

- You are expected to show up to all tutorials
- Tutorials are two hours in length
 - First hour will be a lecture style tutorial
 - Second hour will be devoted to Q&A, meeting with groups, and working out components on the project under the guidance of the TAs

How Will the Tutorials Work?

- The tutorials will allow time for:
 - Discussing the course material, including the project
 - Asking specific questions about the course material
 - Meeting with your group members
 - TAs to check in with the groups to monitor progress
 - TAs to possibly collect log books
 - Be sure to have your log books on you for each tutorial!

Project Description

- Available on the course webpage

Deliverable 1: Software Requirements Specification

- Deliverable Worth: **10%**
- Due Date: **October 9, 2012**
- Software Requirements Specification adhering to the hybrid (IEEE/Volere) template

Deliverable 2: High-Level Architectural Design

- Deliverable Worth: **10%**
- Due Date: **November 6, 2012**

- Use Case Diagrams
- Analysis Class Diagram
- Architecture Design
 - Division into subsystems with high cohesion
 - Identification of the overall architecture
- CRC Cards

Deliverable 3: Detailed Design

- Deliverable Worth: **10%**
- Due Date: **November 27, 2012**

- State Charts for Controllers
- Sequence Diagrams
- Detailed Class Diagram

Deliverable 4: Final Code

- Deliverable Worth: **10%**
- Due Date: **December 4, 2012**
- Deliverables 1, 2, and 3
- Assessment of your application
 - Brief user guide
 - Some testing documentation
 - Any plans for future work
 - etc.
- A CD containing all of your application code

Assessing the Feasibility of the Project

- The project described in each deliverable may be a subset of the project described in the previous deliverable
- You may cut features as you progress as you continually reassess the feasibility of your project
- Final implementation must contain *at least* the *minimum project requirements*, plus *one additional innovative feature*
- Keep your options open as long as possible

Some Other Comments Concerning Deliverables

- Each Deliverable must contain a signed list of the contributions put forth by each group member
 - Try to balance the load among group members
 - Try to be as specific as possible
 - If you do not sign, then you agree with what is said in the list of contributions
- You have the ability to resubmit a revised deliverable for remarking provided that it is done in a reasonable time
 - On the first resubmission, it is possible to obtain a bonus for a good demonstration of effort to revise your deliverable
 - Subsequent resubmissions do not offer bonus marks

The Burden of Background Research

- A large portion of this project is to do the required background research
- Keep in mind that a substantial component of any software project is to solve and/or eliminate the underlying technical difficulties
- This often means hitting manuals and Google

A Word on the Creative and Innovative Features

- Think outside the box
- Creativity and innovation will be generously rewarded
- Be sure to choose a creative feature that is feasible

How To Keep a Log Book

- Your log book should be a physical hand-written book
- It should contain:
 - All the notes of the work done during the group meetings
 - A list of deadlines and who is responsible for completing what
 - Notes on failures to meet deadlines and/or exceptional work
 - Your individual contributions to the project done on your own time

Working in Groups

- You will be assigned a group consisting of 5 members
- A good group dynamic is a key to success in this project
- Play off of each others strengths and weaknesses

Electing a Group Leader

- You will need to elect a group leader
- This person will be responsible for:
 - Making decisions if the group cannot come to a consensus
 - Delegating tasks
 - Managing the group dynamic
 - Ensuring that deadlines are being met
 - Chairing group meetings

How to Handle Disputes with Groups Members

- Address any issues among the group right away
- Try to resolve any issues amongst yourselves
 - If the issue cannot be resolve amongst the group, then see the TAs or the course instructor
- Do not come to us at the end of the term complaining about your group

The Importance of the Log Book

- The log book is the most important tool for handling disputes amongst group members
- Good log books will be consistent amongst group members
- They will be reviewed to gain an understanding of the issue as it should be clearly documented
- If the TAs or the instructor cannot see any evidence of the complaint amongst the logs books of the group, then there is not a whole lot we can do

Some Insight from Last Year's Experience

- Last Year's Project: **Campus Scavenger Hunt Application**
- Received positive feedback from students
- Some students installed their applications on actual devices

Where and How to Start? Do's and Don'ts

DO

- **Brainstorm** what you would like your application to do and how you would like it to be
- **Install the Android platform** and play around to familiarize yourself with the environment
- Perform some **background research** to familiarize yourself with the project concepts
- Break down the project into **smaller components** to make it easier to think about
- Work with your group

Where and How to Start? Do's and Don'ts

DON'T

- Try to code the application right away
- Get overwhelmed by trying to think of the project as a whole from the beginning
- Be shy to put forward your ideas
- Shoot down others ideas without giving them a chance
- Try to do the project all by yourself
- Panic; this cannot be stressed enough

Questions

- Questions?