

Student Originated Software – Fall 2001
Case Study Syllabus

Description:

The main objective of this part of the program is to gain the ability to apply OOAD software development methods and to gain skill using the Unified Modeling Language notation. So that students can ground their year-long projects in experience, and have a common, first hand understanding of the software development process, we will work together through the "software life cycle" for a case study of a vehicle rental business (*EURent*). Students will work in groups of four (two VAJ programming teams) on self-graded in-class exercises on *EULease*.

By the end of the quarter, we expect that students will be able to work alone or in a small team to apply these new concepts and abilities to their yearlong project.

Expectations and Requirements:

To receive credit, students must attend weekly workshops and complete all deliverables.

Student development teams will be evaluated on the basis of weekly assignments and on the final notebook and implementation, and class presentations of those deliverables. Each student will receive the evaluation of his or her team, though I will endeavor to point out in the evaluation situations where an individual's work was exceptionally good or poor.

Deliverables:

Weekly case study assignments- due each Thursday by 2:00 pm.

These assignments on *EUBid* will be completed by teams of two (one VAJ programming team).

Case Study Assignment Notebook – due Thursday of week 9, November 29th at 2:00 PM

You will be compiling this notebook throughout the quarter from the weekly assignments on a weekly basis. However, you will have the opportunity to revise the components and hand it in one week prior to the implementation due date (December

Case Study Notebook – due Thursday of week 9, November 29th at 2:00 pm.

Hand in one notebook per implementation team. For this notebook, you must integrate the case study assignments into a coherent specification for implementation. This could be a revision of the assignments of one team of two or an integration of all the teams' assignments. We will expect the notebook to include all the assignments for the case study that you have done, including:

System "Externals":

- Your first cut requirements analysis (vision statement and project scope) version 1, plus any changes (additions) to the baseline requirements analysis that we gave you. You can either annotate our document to match what your system does, or write your own.
- Functional and "other" Requirements (Use-Cases, Use-Case Diagrams, Performance Guidelines, etc.)
- Preliminary Risk Assessment
- Project Glossary
- User Interface Design and Storyboard or Navigation Flow(s)
- System (Function) Test Cases, and Test Plan
- User Manual.
- Annotated listing of other "user deliverables", in the form of an internal memo to "EU Travel Corporation". It should include information about how you intend to deploy the system, i.e., user training, system maintenance, etc.

System "Internals"

- Class Diagrams.

- Interaction (probably Sequence) Diagrams.
- System Architecture (design packages, or component diagram).
- State Diagrams (optional)
- Unit Test Cases and Test Plan.
- Implementation Plan.

System "Demo" - due Tuesday of week 10, December 4th.

Devise a professional demo for program faculty. Hand in a list of the roles each member of the team played on the project (requirements, design, implementation, testing.) Print out one or two pieces of code (2-3 pages) that you find particularly interesting, and state why you have chosen these as examples.

System "Evaluation" – due Tuesday of week 10, December 4th. (1-page max for each item)

- State explicitly what works and what doesn't work in your system.
- Talk about what you learned from doing this case study. (This can be done by each individual, or be a group effort.)
- Evaluate Visual Age Java as a development vehicle, and Rational Rose as a CASE tool.
- A prioritized list of enhancements to your system, with time estimate for each.

Any additional information you think the faculty will find helpful in evaluating your work, or giving you feedback.