

CSS 506 – Class Project - Overview and SDLC

Introduction

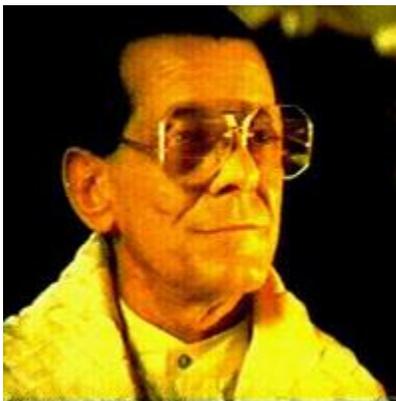
Your boss at The Tyrell Corporation, a large multi-national corporation with focus on genetic engineering and government projects, has asked you to work on their next generation of forensic imaging processing tools. The new forensic imaging tools allow an analyst to alter the focus, zoom, and camera position of images taken with latest generation of digital cameras including those on mobile devices. The Tyrell Corporation expects to sell the tools to law enforcement, private investigators, and related forensic organizations and individuals. As these tools expect to produce evidence used to take action with regards to threats and in prosecution of crimes, that evidence may be subject to regulatory concerns such as the Federal Rules of Evidence (for example, <http://federalevidence.com/rules-of-evidence>).

Some prototypes of capabilities can be seen as part of the following:

- [Blade Runner's Esper Photo Analysis](#)
- [Adobe's Deblur Sneek Peek](#)
- [Lytro Picture Revolution Blog](#)
- [Cornell's Make3D Project](#)
- [3-D Reconstruction from a Single Still Image](#)

In addition, the team has been individually prototyping simple image processing code to define a base to build upon. The team needs to determine how they want to treat this effort-- evolve or throw-away.

Instructions



Assume that your team is the lead architecture and development team for the project effort. This is your first team meeting after the kick-off session with your boss Dr. Eldon Tyrell (from *Wired* September 2007).

In the initial launch meeting, Dr. Tyrell asked you to produce a project proposal that would include an overall description of the project as you understand it and a justified project plan that describes how you manage the project to be successful. This project proposal will be developed as a series of interim drafts with the final draft due in December. Dr. Tyrell will expect to

see significant results by late next year.

Dr. Tyrell has provided you with a \$3M budget beyond your immediate team's salary needs to accomplish the project. You may decide on how to spend this budget including hiring additional team members, outsourcing work, purchasing technology, or the like. You can assume that you already have standard development tools and infrastructure already available for the immediate team. You can make assumptions but you should check with management liaison (your instructor) to determine if they are reasonable.

The focus on the project plan should be the methods / practices that you will use for the project, the overall timeline expected, budgeting / assumptions, and justification for the approach. Justification should be based on organization and project attributes and constraints, expected outcomes, and the benefits of the approach recommended.

First Draft of Project Plan – SDLC Selection

In the first draft, capture a general description of the project and create skeleton project plan that identifies the key software engineering methods and practices that you as important. This should include your selection of a *software development lifecycle model* (SDLC) that you feel would be most appropriate. Develop an initial a calendar timeline with key project stages / phases / releases that reflects the selected SDLC. The project plan should be written as a recommendation to Dr. Tyrell.

The first draft does not need to be formally draft in terms of structure, form, wording, or style, but should be readable for review purposes. The first draft will be reviewed in terms of whether the choices made are appropriately justified and a reasonable effort undertaken towards the final draft.