Day 5 Notes...

Chapter 2 slides continued today, starting with Spiral Model-(slide 26)...

The spiral model starts with Budget! Mark is vindicated :)

Agile model (slide 28) – Responding to change...

eXtreme Programming...

wikipedia pages for
- Crystal Clear Software Development
- Scrum (development)

Continue through the slides...

(slide 41) – Factors effecting each other. All arrows lead to “Software development productivity.”

Question Dr. Saad is trying to answer is “How do we get a better appreciation of what model is good, when is it applicable?”

Discussion of the paper Jeff found: Object-Oriented Analysis-Is it just theory (Roy Gelbard, Dov Te'eni and Matti Sadeh)

What is “use case?”

Why can't we provide conditions for Clarity, Integrity, and Completeness? It's just not built into UML.

A problem Dr. Saad has in mind for us:

Ill defined, incomplete user requirements. Business logic is a challenge. How do you want these things to work together? Possibly use LAMP (Linux, Apache, mySQL, PhP)...

Stay high-level in this course, talk/think about software development processes. How can we get a very concrete project going, Dr. Saad can provide user requirements, and we should be able to apply the processes to it.

If Dr. Saad creates a google doc, we can all go into it and add our papers & links.

Next week, chapter 3... Brian leads discussion on the future of software engineering. Ben-Be ready to discuss the paper = Structured programming: A minor part of software engineering (Parnas)
Day 6 Notes...

Dr. Saad - What to do with the project? Not going down to the code.

Most productive way to pursue:

1\textsuperscript{st} project corresponding to the deliverables for the 1\textsuperscript{st} 4 chapters.

2\textsuperscript{nd} project for chapters 5,6,7

3\textsuperscript{rd} project for the 8-?

Term project...

Last time, what model is useful when?

This week, chapter 3. Look at the slides. Chapter 3 – Planning & Managing the Project.

$$ What do you do to manage resources?

(Slide 2)(Slide 3), What is Project Management –

Tasks -->

Resources: Personnel

Computers

Time

Gantt Chart: Task over time... A type of bar chart that illustrates a project schedule. See the wikipedia entry for Gantt chart. Shows what processes happen during what weeks. Problems: The processes depend on each other. Difficult to estimate time some processes will take. The further out a task is (event horizon), the harder it is to plan because of the dependencies / uncertainties.

Project schedule: Enumerate the phases or stages. Break each phase into discrete tasks or activities...
Reduces uncertainties. Estimate the time each activity will take.

Understand the customer's needs.

(Slide 7) Activity / Milestone / Precursor / Duration / Due Date
(Slide 8) Shows how the project can be broken into phases.
(Slide 9-11) Table for phases/steps/activities/milestones in building a house.
(Slide 12-13) Breakdown & Activity graphs
Project management institute: www.pmi.org
(keep viewing slides)
(slide 18) Slack time – If you miss a slack deadline, the whole project gets pushed back for the duration that you are late.

(keep viewing slides)

(slide 36) Size SLOC = Source Lines Of Code

(slide 40) S is the size of the system.

Neural Network – Non linear function estimator of sorts...

(keep viewing slides to the end of the chapter)

Time to discuss the project:

Think of an interesting idea we want to work on. A software app we would need to apply what we've learned so far. Something the development life cycle would take 12 weeks.