TIMG 5006
Management of Software Engineering Projects

Session 1: Sep 2

Fall 2015

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www.carleton.ca/tim
www.carleton.ca/tim/tim.pdf

Session 1 objectives

- Upon completion of this session, you will know about
  - Course objectives
  - Rationale and benefits
  - Class sessions
  - Assignments and evaluation
  - Required readings

- And you will be able to
  - Access the course material and tools

Agenda

1. Introductions

2. Access to course material

3. Course outline

4. Questions

1. Introductions

- Getting to know the team

2. Access to course material

- Go to http://moodle.tim.carleton.ca

- Enter the user name and password I sent you (email me if you are not yet registered for this class)

- Email: michael_weiss@carleton.ca

- Under **My courses** click on **TIMG 5006** Information is organized by week, and corresponds to the schedule in the course outline

- Course tools: wiki, discussion forum

3. Course objectives

- Focus on role of project manager responsible for planning and controlling development activities

- Examine theory, processes, methods, and tools

- Particularly interested in emerging practices, research, and exploring controversies within the field

- Combines perspectives of opportunity development; agile and open source practices; and patterns

Rationale and benefits

- Build capability and knowledge in the management of large, complex and changing software systems

- Learn about different perspectives on managing software projects, gain familiarity with the practitioner and research literature, and become proficient with practical managerial skills which can add value

- Targets software-intensive technology companies

Class sessions

- In-class and online

- Interactive, discussion-based

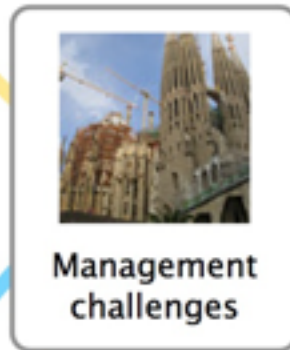- Presentations

- Continued in Moodle

Topics

Core assets · Product · Org

Beyond the project

External contributors

Architecture and organization

Management challenges

Understanding the customer

Planning and execution

Discovering opportunities

User-centered design

Feedback and agility

Estimation and testing

Managing uncertainty

Assignments and evaluation

- Group assignments
  - Write a project management pattern (20%)
  - Design a card / board game for training a software project management skill (40%)

- Class participation (10%)

- Exam (30%)

Assignment 1 (20%)

- Write a project management pattern
  - Identify a problem and its context
  - Discuss what makes it challenging (ie forces)
  - Present a solution to the problem based on your personal experience or on the literature
  - Discuss consequences of the solution
  - List known uses of the solution as evidence

- Workshop where you will receive feedback on the pattern from the class and final presentation

Example (summary)

- Problem: Ensure that subsystems of a larger system developed in an iterative manner work together

- Forces: Subsystems are developed at different rates, and developers work on a private copy of the system when developing their subsystems

- Solution: Give developers a mechanism to integrate software periodically, impose policies that discourage developers from developing without integration

- Consequences: Developers all see the same system

- Known uses: Describe known ways of implementing this solution (eg continuous integration)

Assignment 2 (40%)

- Design a card / board game for training a software project management skill

- Detailed requirements will be provided

- Pitch of game idea

- Presentation of first version

- Final presentation

Example

- Kanban 1s game (http://jonjagger.blogspot.ca/2012/02/my-kanban-1s-board-game_19.html)
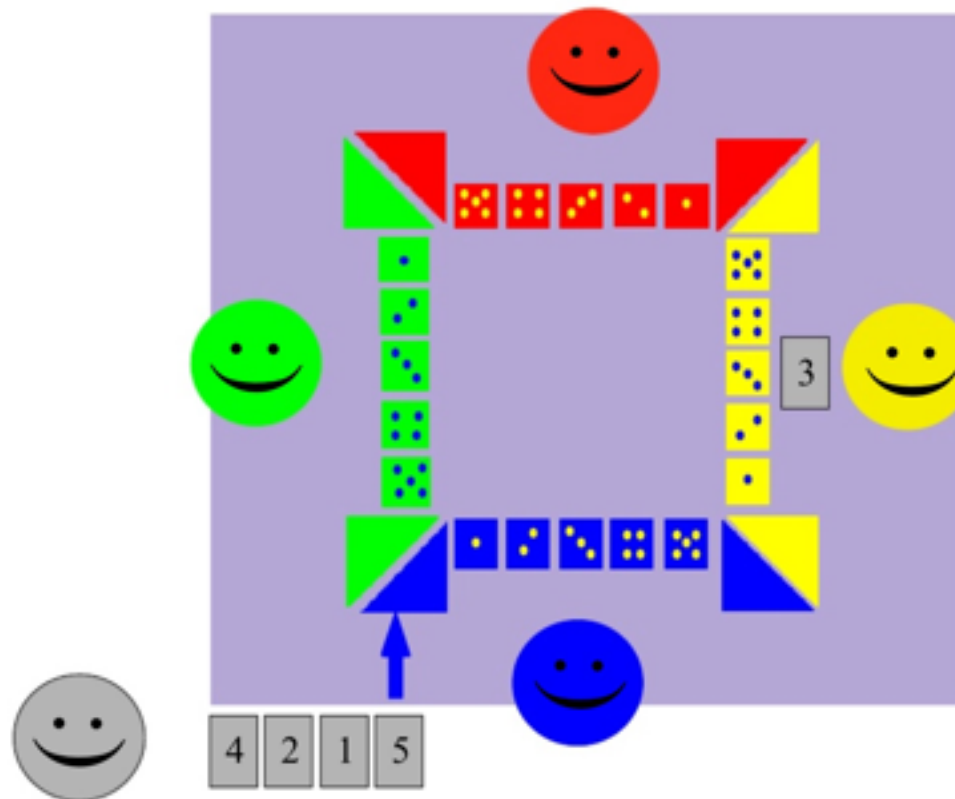
Class participation (10%)

- Participate in class discussions (in-class, discussion forum) and provide feedback on assignments

- Post three key insights from one chapter of the Adrenaline Junkies book to the wiki

Exam (30%)

- Take-home exam

- Handed out in the last class (Dec 2)

- Due on Dec 9, 6 pm

Required readings

- Books (Adrenaline Junkies, Lean Architecture*, Agile Software **, Global Software in IT***)

- Selected journal papers and other articles

*in Safari **also in papers ***ebook in library

Extra credit ;-)

- Recently published books that supplement the material covered in the course

Questions

- We will end each session with a summary of questions and insights produces from the readings

Readings for next session

- Sauer, C., & Reich, B. (2008), Rethinking IT project management: evidence of a new mindset and its implications, International Journal of Project Management, 27, 182-193.

- Baskerville, R., Ramesh, B., Levine, L., Pries-Heje, J., & Slaughter, S. (2003), Is Internet-speed software development different?, IEEE Software, 20(6), 70-77.

- Royce, W. (2005), Successful software development style: steering and balance, IEEE Software, 22(5), 40-47.

- Noll, J., Beecham, S., & Richardson, I. (2010), Global software development and collaboration: barriers and solutions, ACM Inroads, 1(3), 66-78.

Credits

- Handshake, http://www.flickr.com/photos/aidan_jones/3575000735, CC-BY SA

- Sagrada Familia, http://www.flickr.com/photos/plugman/3476035162, CC-BY