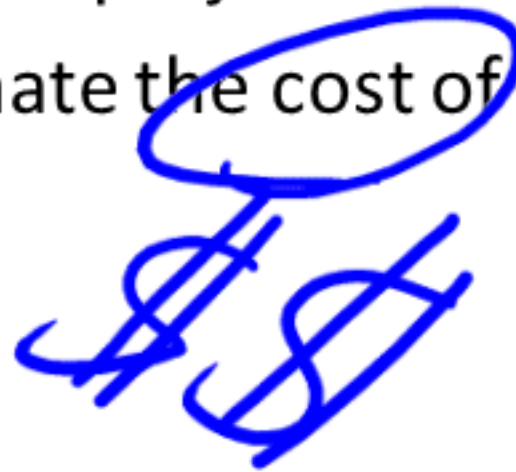




Goals and Planned Achievements

Lecture Objectives:

- 1) Develop a persona for a project user. —
- 2) Define the goals for a project using a purpose, advantage, and measurement technique
- 3) Define a set of constraints for a project
- 4) Explain how one would estimate the cost of a software development project.



Today's (Hypothetical) Case Study

- MSOE is building a new online course submission system. The system will allow students to submit assignments for classes for grading by professors. The system will also allow submitted assignments to be viewed by prospective employers as a portfolio of student accomplishments. Department chairs can also use the system to review assignments for faculty promotion and contract renewal. The system will also allow assignments to be viewed by ABET evaluators.

- What term from the previous slide should go in the glossary for this project?

side note:

ABET ⇒ Accreditation
Board for Engineering
and Technology

MSOE Project: Who are the

stakeholders?



★ Employers
★ Students
★ Teachers

Lawyers
IT

Developers

★ Dept Chairs

★ ABET Accreditors

FERPA Regulators

School Administrators

★ Career Services
Parents (maybe)



Users

- The people who are hands on with the system

Users: would
be the best

Persona

- A virtual person archetypical of most of your users



- What might a user's persona be?

Worksheets

Goals

- What benefit does the project deliver to the stakeholder?
 - Essentially, the highest level requirement
 - Should be written clearly and unambiguously
 - Should be written in a measurable manner to quantify the benefits
- Expressed as
 - Purpose
 - What will the purpose achieve
 - Advantage
 - How might you measure the advantage
 - Measurement
 - How might you measure the advantage



↳ Does it work?

Why?

Simple Purpose

Show it works

• Purpose: The MSOE OnTrack system will allow the program director to accurately estimate the enrollment in Software Engineering courses.

• Advantage: To reduce the number of students who are closed out of courses and the number of sections cancelled due to insufficient enrollment

• Measurement: The number of students who are unable to schedule their desired courses shall be less than 5% per quarter.

Sections or course sections



What are the goals for our MSOE project?

Purpose: Make students
happier

What are the goals for our

MSOE project?

Purpose: Increase ~~availability~~ availability of student's work.

Advantage: → Allow a complete portfolio to be developed.
Raise placement rates.

Measurement: ~~All~~^{99%} of students will be placed.

What are the goals for our

MSOE project?

Purpose: Reduce time for professors to return assignments.

Advantage: Better student achievement

Measurement: All assignments returned by profs in 2 working days.

Constraints

- Restrictions on the requirements that can eventually appear in the final document
 - A mechanism for providing guidance on where to focus effort during the requirements gathering exercise.
- Examples
 - System must run on a tablet PC ✓
 - System must run under Windows 3.1
 - System must interface with Blackboard
 - System must use Ruby on Rails ✓

Conflict

web systems

MSOE Project Constraints

- What constraints might there be on such a system?

~~Must use Java?~~

Must interface w/

MSOE LDAP system.

⇒ Must interface w/ blocking

Estimating Cost

- Many methods
 - Input and output count
 - Number of business events
 - Function Point counting
- See textbook for more details
 - Especially Appendix C

Details
High
Level



$$\text{EffortInStaffMonths} = \left(\frac{\text{functionPoints}}{150} \right) * \text{functionPoints}^{0.4}$$



Casper Jones

\$10,000 per
staff month
