
CIS 422/522

Project Presentations
Teamwork & Group Dynamics

WHAT GROUP PROJECTS ARE SUPPOSED TO TEACH YOU

- COMMUNICATION
- RESPONSIBILITY
- COLLABORATION
- TEAMWORK

WHAT GROUP PROJECTS TAUGHT ME

- COMMUNICATION
- RESPONSIBILITY
- COLLABORATION
- TEAMWORK
- TRUST NO ONE

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Project Presentations

- Each team will have a total of 11 min (practice!)
- Status against plan
 - What was planned? What was actually produced?
 - Brief demo of any advanced features (preloaded)
 - Did you implement what the customer wanted?
- Lessons learned: what did you learn about SE?
 - How effective was project planning?
 - Root causes of schedule delays?
 - Effectiveness of risk mitigations?
 - What will you do differently for project 2?
- Fill out peer evals and return (download from Schedule page)

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Teamwork & Group Dynamics

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What makes a great project team?

- Together must cover all aspects of a project
- Diverse Skills
 - Intellectual: requirements, design, code, test
 - Managerial: estimation, planning, scheduling, reporting
 - People skills: communication (written, verbal), negotiation, collaboration
- Coherence
 - Shared expectations
 - Ability to construct and work toward a shared vision
- Mutual Respect and Responsibility
 - You don't *have* to like each other, but you *need* to trust and respect each other — and to earn your teammates trust and respect
 - This is an enduring part of real world professionalism

Roles and Responsibilities

- Roles should reflect *ownership of responsibilities*
- Each role is responsible for specific activities and artifacts
 - Manager: responsible for schedule
 - Tester: responsible for test plan, unit testing
- A person in the role *owns* the corresponding artifacts
 - Does not mean he/she does all the work
 - Does mean he/she is responsible for artifact's completeness and quality
- *Project Risk*: failure to be specific about individual responsibilities and holding people accountable
 - One of the most frequently cited project problems

What do software developers do?

- One way to measure: how do they spend their time?
- IBM study (McCue 78):
 - 50% team interactions
 - 30% working alone
 - 20% not directly productive

i.e., Technical excellence is not enough

"Egoless" Design

(Weinberg, Psychology of Computer Programming)

- Investing ego in group
- "Letting go" of ego investment in code, design, ideas
 - No winning or losing design debates (focus on improving the product)
 - Once contributed, ideas and artifacts belong to the group
 - Criticism is aimed at artifacts, not people
- The best designers criticize their own designs!
 - Our own assumptions are the hardest to critique
 - Corollary: A good critic is your best ally
 - The hardest lesson to learn but one of the most valuable
 - Applies to all aspects of profession and life

... but we are not egoless people

- Ego investment is normal
 - be aware of it, be in control of it
- Consider the egos of others
 - Examine your own motivations: What are you attacking? Why?
 - What is motivation of the other person?
 - Are they feeling ignored? Not valued?
- Pride in accomplishment is ok, unless it interferes with accomplishment


Consensus Decision Making

- Consensus is not counting votes
 - Democracy is 51% agreement
 - Unanimity is 100% agreement
- Consensus is neither
 - Everyone has their say
 - Everyone accepts the decision, even if they do not prefer it
 - It is "buying in" by group as a whole, including those who disagree
- Usually *best approach for peer groups*
 - "Buy-in" is critical for coordinated effort
 - Avoids winners and losers

Consensus takes time and work, but is worthwhile

Conflict

- Can be healthy and productive
- Can destroy a team if not carefully managed
- Manage conflict constructively
 - Soothe and protect egos
 - Everyone's job, but especially the manager's job
 - *Keep conflict on a technical level (not personal)*
 - Reward conflict resolution
- If team really cannot reach resolution, talk to instructor



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Being a Good Team Member

- Attributes most valued by other team members
 - Dependability
 - When you say you'll do something, you do it
 - Correctly
 - On time
 - Carrying your own weight (doing a fair share of the work)
 - People will overlook almost everything else if you do these
- Also part of your grade
 - Collect from peer evaluations, blogs, etc.
 - Can significantly raise or lower project grade

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Where's Wally?

Evaluation/Teammate Name or initials	Self	Wally	xxx	xxx	xxx
Effective and timely communication with other team members	5	0	5	6	4
Cooperates and works effectively with team members	6	0	5	6	5
Follows agreed to project plan	6	0	6	6	5
Regularly attends team meeting and makes a positive contribution	6	0	6	6	3
Does his/her fair share of the work or more	6	0	5	6	4
Dependably does what he/she agrees to on time	6	0	6	6	4
Overall contribution to team effort	6	0	6	6	4

1 Add any additional comments regarding your teammates' contributions, strengths, or weaknesses

At the beginning of project 2, there were long periods of time (3+ days) where the team was not able to get a hold of neither Wally nor his status on action items. Emails, text messages, and phone calls were sent/made. Modules assigned to him in iterations 1 & 2 were late, incomplete and with little regard to the architecture and module design created by the team architects - which were documented and verbally discussed beforehand at meetings. Wally never communicated to the team any issues or impediments regarding his assigned tasks.

Wally was never up to speed on project progress or his action items, even though they were documented and emailed to him directly. The team gave Wally many chances to start over and contribute to the group. The documentation tasks that were assigned to him in iteration 3 were never completed.

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A Word on Managing

- A good manager supplies what is needed for the team to succeed. This includes (but is not limited to)
 - Resources
 - Planning and coordination
 - Pitching in when needed
 - Protection (especially from upper management)
 - Emotional support, etc.
- Good managers are are leaders not dictators (especially true for *peer* teams)
- Good managers are rare

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Introverts & Extroverts

- Where does your energy come form
 - Extroverts energized by social interactions
 - Introverts energized by internal reflection
- Both have value
 - Extroverts work well in group settings especially with new people
 - May tend to "shoot from the hip"
 - Introverts tend to think more deeply about issues
 - May be reticent to share thoughts
- Important to ensure that introverts are heard
 - i.e., explicitly take turns asking for inputs
 - Provide smaller venues for discussion

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Effective Meetings

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Notes on effective meetings

- Only hold meetings if necessary
 - “Necessary” means that the most cost effective way to accomplish a goal is by meeting
- Have a goal, and a plan (agenda)
 - Clear meeting objectives
 - Known to all in advance (I.e, distribute via email)
- Plan to goal:
 - Participants - Invite only the necessary people
 - Schedule
 - Intended outcome
- Prepare
 - Cost of wasted time = Time x people x hourly cost
 - Cost of individual prep time is much less

Notes on effective meetings (2)

- Start on time, end on time
- Write down and disseminate the results
 - Leaves an audit trail of decisions
 - Makes people feel included
 - Limits the number of (informational) invitees
- End with concrete, specific action items
 - What must be done
 - Who should do it
 - What the follow-up is
- Reflect items in the schedule and developer logs

Questions?
