CSE 308

Project Management

Communication Skills

- Management: Run a team meeting
- Presentation: Present aspects of your project during its development phase
- Collaboration: Negotiate requirements with the client and with members from your team and other teams
- Technical writing: Write specs, user manuals, etc. and document your code

In large system development efforts, you will spend more time communicating than coding

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Communication Events

- Type of information exchange that has defined objectives and scope
- Communication mechanisms – tool or procedure that can be used to transmit information
  - Team environment (e.g., cubicles, meeting room)
  - E-mail, text messages
  - Meetings
  - Bug report system
  - Project documentation
  - Repository coordination
  - Presentations

What is your approach to testing?

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Information to Communicate

- The information to communicate depends on your audience

You will report different information depending on your audience

→ Know your audience

- Categories
  - Client
  - Management
  - Peers
  - Subcontractors

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Client Communications

- Client is interested in:
  - Features
  - Cost
  - Schedule

  plus information that supports team credibility

- Type of client communications
  - Proposal
  - Status review (e.g., requirements review)
  - Milestone review (e.g., design review, code review)
  - Product demo (e.g., final demo)

  Design reviews are usually only done with large clients

Good to under-promise and over-deliver

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Status Reports

- Typically weekly reports
- Goal: inform the client on progress and changes
- Usual format: 1 page with some bulleted lists
- Typical sections:
  - Completed items (i.e., progress)
  - Issues (i.e., problems)
  - Plan for next week

Not required for this semester's project

You will usually report on what you have done, not how you have done it

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Management Communications

- Management concerns
  - Cost (different from client cost)
  - Schedule
  - Synergy (e.g., contract extensions, reusable code, etc.)
  - Company integrity
  - HR issues
- Type of communications
  - Face-to-face
  - Status reviews (weekly, monthly, quarterly)
  - Ad hoc meetings
  - E-mail, memos, etc.

Honesty and trust is very important

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Peer Communications

- Peer concerns
  - Quality (e.g., adherence to standards)
  - Interfaces
  - Egos (?)
- Type of communications
  - Face-to-face
  - Team meetings
  - Cubicle talk
  - Reviews (e.g., audits, code, documentation and design reviews)

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Make Meetings Productive

- Meeting leader
  - Responsible for organizing the meeting and guiding the execution (works with a time budget)
  - Writes and distributes the agenda
- Minute taker (often not the meeting leader)
  - Responsible for recording the meeting.
  - Identifies action items and issues
  - Release them to the participants
- Meeting issue – high cost
  - Make it brief (be prepared)

Stay focused in a meeting – no side conversations

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Peer Review

- Your project will include some peer reviews (oral)
- In a work environment, you are evaluated on your review of co-workers code, designs, etc.
  - Thorough
  - Respectful
  - Productive (suggest positive changes)
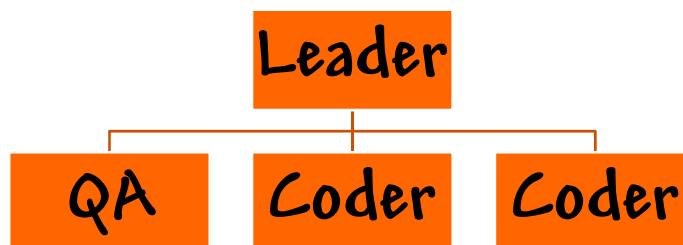
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Project Organization

▌ Project organization approach depends on:
- ▌ Size of team
- ▌ Quality of team
- ▌ Management philosophy
- ▌ Modularity of system
- ▌ Complexity of system

▌ Possible strategies
- ▌ Hierarchal
- ▌ Democratic
- ▌ Hybrid

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Hierarchal Models
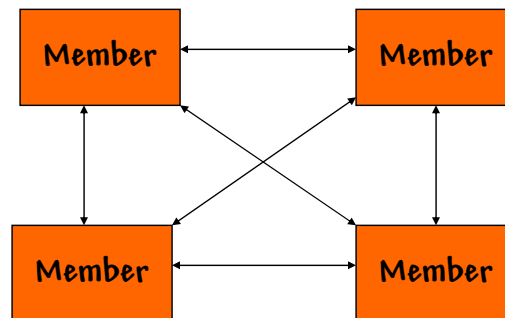
```
                    ┌──────────┐
                    │  Leader  │
                    └────┬─────┘
         ┌───────────────┼───────────────┐
    ┌────┴───┐      ┌─────┴────┐     ┌────┴─────┐
    │   QA   │      │  Coder   │     │  Coder   │
    └────────┘      └──────────┘     └──────────┘
```

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Democratic Models

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Project Plan

- Most projects use Microsoft Project
- Identify major milestones
- Identify discrete tasks (that have a definite end)
- Construct task dependencies
- Construct an initial schedule
- Assign team members to the project tasks

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Typical Project Plan

Tabular data

Management	**537 days**	**Thu 7/1/04**	**Fri 7/21/06**		**Adam S**
Project review meeting	1 day	Thu 7/1/04	Thu 7/1/04		
6 month progress report	15 days	Thu 12/30/04	Wed 1/19/05		
12 month progress report	15 days	Fri 7/1/05	Thu 7/21/05		
18 month progress report	15 days	Mon 1/3/05	Fri 1/21/05		
Final project report	15 days	Mon 7/3/06	Fri 7/21/06		
CPG definitions	**93 days**	**Thu 10/21/04**	**Mon 2/28/05**		**Melina**
Identify top 20 ER CPGs	1 day	Thu 10/21/04	Thu 10/21/04		Melina L
Locate and print CPGs	3 days	Fri 10/22/04	Tue 10/26/04	11	Johnny
Create XML document from first CPG	21 days	Thu 12/2/04	Thu 12/30/04	45,12	Thomas
Test XML with Rule engine	14 days	Fri 12/31/04	Wed 1/19/05	13	Thomas
Create next 5 CPG XML docs	28 days	Thu 1/20/05	Mon 2/28/05	14	Johnny
Administration	**147 days**	**Thu 7/1/04**	**Fri 1/21/05**		
Select grad student	1 day	Fri 7/2/04	Fri 7/2/04		Rob Kel

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