Teamwork

The hardest part of software engineering?

Reputation

- Your goal: build a solid reputation for yourself
  - (as a reliable software engineer)
- Say what you'll do, and then do it.
- Under-promise, over-deliver?

Language: Spoken and Body

Listen more than you talk

- Respond to what you *hear*, don't change subject
- Ask questions
- Avoid talking over, interrupting

Avoid: ultimatums and confrontational language

Anti-team language:

- *No, wrong, don't, never, I won't*
- Answering with *"But …"*

Pro-team language:

- ***Yes, "I see", "I (don't) understand", "Can you explain?", "I see where you're coming from"***
- **Answer with *"Yes, and…"***

Avoid: crossed arms, leaning back, frowning, shaking head, checking phone

Try: **uncrossed arms, leaning forward, smiling, nodding, eye contact**

Blame Is Counterproductive

- Your teammate says: "You wrote buggy code, you weren't available last night, and I had to fix it for you."
- Now you're feeling defensive.
- You: "I told you yesterday, I had an important meeting and wouldn't be available."
- Teammate: "But our project was due last night! How dare you be unavailable?"

Try "I Statements" Instead

- Formula: "I feel <emotion> when <explanation>"
- "I felt unsupported last night when I needed to fix a bug and you weren't there."
- "Yeah, sorry about that. Remember when I said I had an important meeting?"
- "Oh, you're right. Okay, next time, let's get it done earlier so we're not working at the last minute."

How To Apologize

- Not: "I'm sorry you feel that way."
- According to Maimonides (1138-1204, Spain):
  - Confess your mistake; ask for forgiveness
  - Express sincere remorse; promise to not make the mistake again
  - Appease the person whom you wronged
  - Act differently if the situation arises again

Example:

- "I'm sorry I dumped my frozen yogurt in your backpack after I got mad about your choice of emacs. I hope you'll forgive me."
- "It was inappropriate and unfair for me to retaliate like that, and I feel bad that I acted that way. It's okay that we have different opinions about text editors." Next time, I'll keep my cool.
- "Can I wash your backpack for you to get the yogurt out?"

Stages of Group Work

- According to Tuckman, 1965
- One of many models
- Forming
- Storming
- Norming
- Performing

https://en.wikipedia.org/wiki/Tuckman's_stages_of_group_development

Forming

- Team agrees on goals and starts tasks
- Members behave independently
- To move to next stage: "relinquish comfort of non-threatening topics, risk possibility of conflict"

Storming

- Learn about each other's working styles
- Power and status emerge
- Emphasize tolerance and patience
- Ideal: avoid judgment

Norming

- "Resolved disagreements and personality clashes result in greater intimacy, and a spirit of co-operation emerges."
- Tolerate whims and fancies of other members
- Conflict avoidance can become a problem (people need to be able to share controversial ideas)

Performing

- With a focus on common goals, members are effective
- Dissent is expected but managed through a process
- May return to earlier stages (e.g. due to change in leadership)

Hanlon's Razor

- Never attribute to malice that which is adequately explained by incompetence.

Dissent and Disagreement

- Need a process!
- Rarely: manager chooses
- Ideal: consensus
- Often: majority wins, minority loses
  - Can you lose gracefully?
  - Losers are sometimes later proven right — but gloating is not helpful

Dealing With Interruptions

- Person A: "Hey, I noticed that sometimes, we…"
- Person B, interrupting: "What if we…?"
- Bystander: "I think A noticed a problem. A, what was that?"
- Your role: *amplify voices that weren't heard.*

Boundaries

- Good teammates respect boundaries
- Respect others' boundaries, and they'll respect yours
- In this course: expect 9 hours of work outside class
  - < 9 hours on the project if there's homework

Debugging

- Sit with people who are NOT on your team.
- Q1 on Gradescope: two teamwork problems in your team
- Debug!
- Q2 on Gradescope: names of people you are meeting with now
- Q3: possible solutions