



University College Dublin
An Coláiste Ollscoile Baile átha Cliath

COMP3030J Software Engineering Project

Lecture 3

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UCD School of Computer Science

Ranked **1** in Ireland, according to QS World University Rankings 2017





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Overview

Soft Skills for Software Engineers

Conflict Resolution

Your Task for This Week



Moodle Enrolment

- <https://csmoodle.ucd.ie>
Log in with your UCD username and password
- Find COMP3030J Software Engineering Project 2019-20
- Enrolment key: COMP3030J2020



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Soft Skills



Soft Skills for Software Engineers

- “Soft skills” are just as important, and sometimes more important, than technical skills
- What are “soft skills”?



Image by Theresa Chiechi © The Balance 2019

Soft skills are the personal attributes, personality traits, inherent social cues, and communication abilities needed for success on the job.

<https://www.thebalancecareers.com/what-are-soft-skills-2060852>



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Soft Skills

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These are the 9 skills that would make any hiring manager happy

They're called "transferable" because you can take them with you to any new gig.

Sally Buffalo

<https://www.monster.com/career-advice/article/skills-hiring-manager-wants>

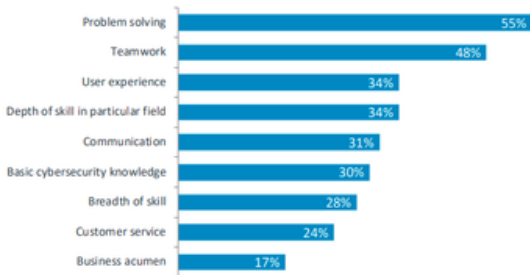


These are the 9 skills that would make any hiring manager happy

- Critical thinking
- Collaboration
- Leadership
- Creativity
- Written communication
- Coding
- Time management
- Data management
- Customer service



Skills IT Managers are Looking for when Hiring



When asked which skills IT managers are looking for when hiring, 'problem solving' topped the list, but 'teamwork' came a close second

<https://www.zdnet.com/article/>

tech-jobs-these-are-the-skills-hiring-managers-are-looking-for-now/



10 Soft Skills Every Developer Needs



Cronofy

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Jan 3, 2018 · 7 min read



Personal attributes that enable someone to interact effectively
and harmoniously with other people

<https://hackernoon.com/10-soft-skills-every-developer-needs-66f0cdcf3f7>



Soft Skills for Software Engineers

■ Empathy

- Being able to empathize with your team allows you to fully understand the problems that they face and find a way to make your project work for everyone

■ Communication

- Speak clearly and with conviction
- Listen
- Don't interrupt

■ Teamwork

- No matter what you do, there will be time when you have to work as part of a team
- You may not always agree with the people in your team, but having different points of view helps to build more successful companies



Soft Skills for Software Engineers

- Approachability and Helpfulness
 - Not being approachable or helpful also means that others are less likely to help you should you need it
- Patience
- Open-mindedness
 - When your mind is open, you're more willing to accept new ideas, whether they're yours or someone else's
 - While not every idea you have will turn into something, you don't know what will until you've thought about it in-depth



Soft Skills for Software Engineers

■ Problem solving

- How you handle problems will have a big impact on both your career and the company you work for
- Problem solving is a key skill that employers look for in prospective employees
- So the more examples you have of problem solving, the better

■ Accountability

- Accountability is all about taking ownership of your mistakes
- It can be difficult to admit that a decision you made created an undesirable result
- But in the long-term, both you and your team will be better off



Soft Skills for Software Engineers

■ Creativity

- The best ideas and solutions often come to us when we approach things from a different, less obvious angle
- Despite popular opinion, creativity can be learned, but it comes with practice
- The more ways of creativity you explore, the easier it is to find different ways to approach the same problem

■ Time management

- When you have a lot to do, knowing how to manage your time is crucial



Soft Skills for Software Engineers

A very interesting article in INC magazine, based on a recent LinkedIn survey of 5,000 employers (pdf on Moodle) ¹

- LinkedIn surveyed 5,000 talent professionals and found the top 3 ways employers are screening for soft skills
- A resume will get your foot in the door, but it won't get you the job

¹<https://www.inc.com/michael-schneider/soft-skills-are-key-to-landing-your-dream-job-according-to-a-linkedin-survey.html>



Soft Skills for Software Engineers

- “... many rely too heavily on their resume [e.g. technical skills] and don’t prepare accordingly for their face-to-face conversations [such as interviews]”
- Performing well in-person has changed
- Rather than focusing on your resume and past experiences, interviewers are more concerned with your ability to interact and communicate with others
- They are more concerned with your soft skills



Soft Skills for Software Engineers

- Technical abilities are easier to teach [and learn]
- Interpersonal skills are not [easy to teach and learn] (traits like creativity, collaboration, self-awareness, adaptability, and communication)
- That's why many organizations are going to great lengths to uncover them



Soft Skills for Software Engineers

The belief behind asking behavioral based questions is that the best predictor of future behavior is past behavior

- “Tell me about the last time you had to work with someone who had a different work style than yours”
- “Describe a time in which you needed to learn a new skill”
- “What would you do if...”

The goal is to highlight your problem solving capabilities while emphasizing important soft skills like teamwork



Soft Skills for Software Engineers

Another very interesting article “How to keep your software engineering skills up to date: 4 tips”²

- The first skill most hiring managers search for is programming language experience
- Candidates who are familiar with multiple languages are particularly valuable, as they have the agility and experience to work with a variety of systems
- However, language skills aren't the only priority

²<https://www.techrepublic.com/article/how-to-keep-your-software-engineering-skills-up-to-date-4-tips/>



Soft Skills for Software Engineers

- “When we look for engineers, we look for more than just people who know how to develop. We look for people that can actually collaborate and communicate. What good is an amazing architecture if you can’t show people how to use it? An engineering team should be a sum of its parts, and not single individuals working.”



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Conflict Resolution

What sort of a team do you want to be?





What sort of a team do you want to be?





Conflict Resolution

- Conflict is a normal part of any group work, the challenge of conflict lies in how one chooses to deal with it.
- Developing an effective conflict resolution skill set is an essential soft skill.
- From UC San Diego “How to Handle Conflict in the Workplace”:
<https://blink.ucsd.edu/HR/supervising/conflict/handle.html>



Conflict Resolution

- Talk with the other person.
 - Ask the other person to name a time when it would be convenient to meet.
 - Arrange to meet in a place where you won't be interrupted.
- Focus on behavior and events, not on personalities.
 - Say “When this happens ...” instead of “When you do ...”
Describe a specific instance or event instead of generalizing.



Conflict Resolution

- Listen carefully.
 - Listen to what the other person is saying instead of getting ready to react.
 - Avoid interrupting the other person.
 - After the other person finishes speaking, rephrase what was said to make sure you understand it.
 - Ask questions to clarify your understanding.
- Identify points of agreement and disagreement.
 - Summarize the areas of agreement and disagreement.
 - Ask the other person if he or she agrees with your assessment.
 - Modify your assessment until both of you agree on the areas of conflict.



Conflict Resolution

- Prioritize the areas of conflict.
 - Discuss which areas of conflict are most important to each of you to resolve.
- Develop a plan to work on each conflict.
 - Start with the most important conflict.
 - Focus on the future.
 - Set up future meeting times to continue your discussions.



Conflict Resolution

- Follow through on your plan.
 - Stick with the discussions until you've worked through each area of conflict.
 - Maintain a collaborative, "let's-work-out-a-solution" attitude.
- Build on your success.
 - Look for opportunities to point out progress.
 - Compliment the other person's insights and achievements.
 - Congratulate each other when you make progress, even if it's just a small step.
 - Your hard work will pay off when scheduled discussions eventually give way to ongoing, friendly communication.



Conflict Resolution in COMP1003J

- Use the steps above to try to work things out in your groups.
- If you are still having problems talk to you TA.
- If you can work things out after talking to your TA your TA needs to summarise the problem from both parties point of view and email me.



Conflict Resolution in COMP1003J

- You must make me aware of any conflict issues as soon as possible.
- Both parties must be given an opportunity to make amends while there is still time during the semester.



With your TAs

Review:

- Material on Moodle
- Meeting Agendas
- Gantt chart
- Completed Work Package Template
- Weekly Update – review your progress to date and make your plan for this week