# Professionalism

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# What does it mean to be a professional engineer?

**Four pillars of being a professional:**

1. Communication
2. Teamwork
3. Resilience
4. Technical Skills

# Communication

**Does everyone understand what you're working on?**

# Communication

**Making sure everyone understands what you're doing**

- Problem solving in teams involves shared understanding
- In order to solve human problems, we must understand what people need and how we can help them
- The more we communicate with computers the more risk we have of treating people like machines
- The ability to explain our code is important to keep us on track
- It's especially important to be able to explain your code to non-programmers

# Teamwork
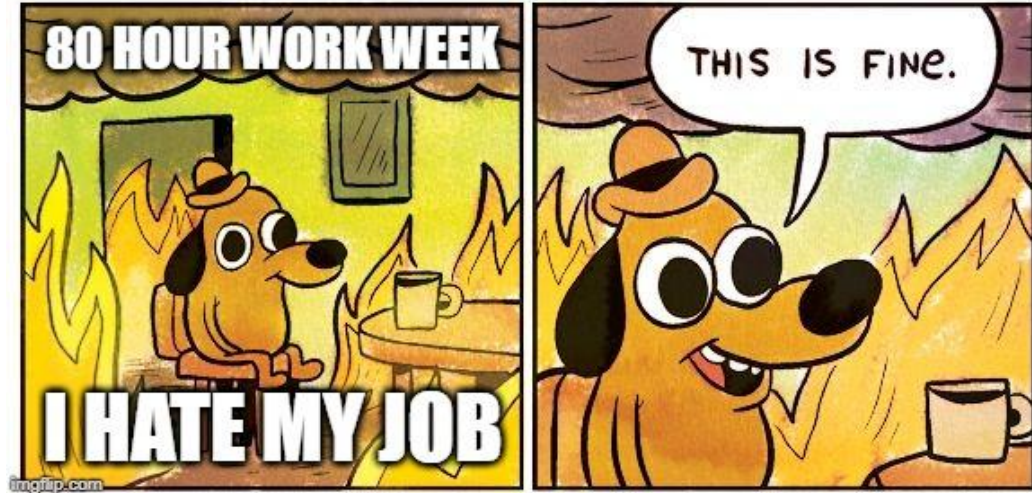


**Code is very rarely created alone**

Teams that get along are usually more successful than teams of pure skill

# Teamwork

**Code is very rarely created alone**

- Teamwork involves sharing and compromise
- Can you work with other people's ideas?
- Can you follow someone else's style and structure?
- Can you adapt your structure so that other people can use it?
- Can you provide support to your teammates?
- Teams made of people who get along are usually more successful than teams made of very skilled individuals!

# Resilience



**Work is hard. We need to look after ourselves**

- You shouldn't have to "survive" your job
- Dealing with "impossible situations"
- Failure is inevitable, what counts is how you recover, not whether you fail

# Technical Skills

**How's your programming?**

- Yes, this comes last in the list
- It's still important but it can't be your only focus
- We have the majority of our degrees to learn technical programming

# More about Resilience and Surviving

**You have an assignment due soon**

- Success isn't about getting everything done
- It's about prioritising your effort so you don't have to do as much work!

**Priorities:**

- What gets you the most marks with the least amount of time?
- Code Style?
- Clean, basic functionality?
- There are more marks in the earlier stages than later
- Aim for what you can achieve without burning out

# Don't Panic!

**Surviving is about acting rationally in panicky situations**

- Take a moment to breathe
- Figure out what your options are
- Break problems down into small bits
- Complete small pieces one at a time
- Aim for whatever gets you enough

# Who can become a professional?

**You. The answer is you.**

- No one knows what they're doing
- Everyone who looks like they know what's going on is just hiding it better
- Or lying to themselves

# Becoming a Professional

**It doesn't have to happen yet . . . and it's always ongoing learning!**

- Remember to communicate with colleagues
- Follow as well as lead when you're in a team
- Look after yourself
- And above all . . .
- **Care about yourself, the people around you and your work**

# Learning is more important than success

**Learning something new is better than being good at something!**

Remember . . . as nice as high marks are, they're not the same as long term fulfilment

*"I don't care who you are, where you're from, what you've done . . . as long as you love C." - The Backstreet Boys (definitely not misquoted at all)*