University of Dublin
Trinity College

CS7CS3: Advanced Software Engineering
Introduction
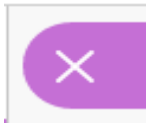
Prof. Siobhán Clarke

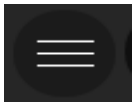Ext. 2224 – L2.15

www.scss.tcd.ie/Siobhan.Clarke/

The Session Will Begin Shortly

1. Click on the pink Collaborate button (bottom right) to open the chat window and enter your message.

2. You can close the Collaborate panel at any time so you can see more of the current presentation.

3. Click on the menu icon at the top left when you want to exit the online lecture

→ A recording will be made available afterwards in case you get disconnected or have technical issues.

So, Software Engineering. Why bother?

Software engineering is hard!   POLL.

AGREE?

DISAGREE?

So, Software Engineering. Why bother?

Software engineering is hard!

- academic discussions/lectures seem useless!

easy to code small systems/apps

easy to figure out what code to write with small problems

easy to manage communication with 1 person team

easy to integrate with code you write yourself

easy to forget about when maintenance not required

- school of hard knocks gives better appreciation

Some polls:

How many years PROFESSIONAL software engineering experience to you have?

- Option 1: None or University internship only
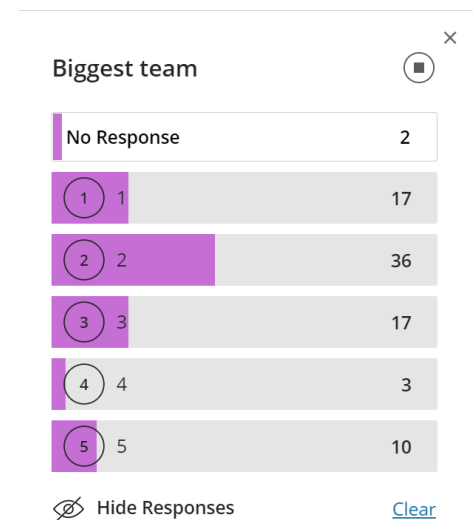- Option 2: <2 years
- Option 3: 2-4 years
- Option 4: 4-8 years
- Option 5: > 8 years

Professional experience?

No Response	2
1	38
2	13
3	21
4	8
5	1

Hide Responses   Clear

Some polls:

What is the biggest software development team you have worked on?

- Option 1: <= 4 people
- Option 2: 5-8 people
- Option 3: 9-12 people
- Option 4: 13-20 people
- Option 5: >20 people

Biggest team ✕

No Response	2
1 1	17
2 2	36
3 3	17
4 4	3
5 5	10

Hide Responses   Clear

Some polls:

Which of the following describes the largest project with the biggest team you have worked on?

- Option 1: Very successful indeed!
- Option 2: Somewhat successful overall
- Option 3: Could have been better, could have been worse
- Option 4: Mostly unsuccessful
- Option 5: Complete disaster

How successful

No Response	5
1 1	4
2 2	43
3 3	29
4 4	3
5 5	3

Hide Responses   Clear

Whiteboard

What are the factors that contributed to any **failures** in the projects you worked on?

Options up here! PLEASE USE TYPE NOT FREEHAND

Whiteboard

Shift responsibility

Unsure of how to estimate time for project

What are the factors that contributed to any **failures** in the projects you worked on?

lack of communication. Example tv people picking up the same task.

too many meetings

demand issue

Delivery took priority over security

Requirement miss.

Tasks not described clearly enough

Miscommunication

inorrectly defined requirements

Some people do not own responsibility.

miscommunication

Lack of subject matter experts when the timelines were stringent

not having proper test cases

Work and time management

focusing on quantity of dev instead of quality

poor documentation and compromising quality over deliverability

Disagreements between different sub-teams

lack of following code practices

misunderstanding customer requirements

different culture

somebody went away

Time management

organizational

Lack of direction and information

lack of experience

politics

Lack of understanding of tech stack

Lack of suitable and competent people for the job.

Lack of support from the vendor

Ego management

Underestimation of loads

Ego prevented proper delegation

communication

ego clashes

Less number of testers

Under-estimation for the story

excessive documentation work and less time to code

Not hiring the required expertise essential for the the project

Introduction to CS7CS3

7

Lack of concerete colloboration framework

people not contributing

Difference of opinions

infrequent standup meetings

nepotism

Whiteboard

What are the factors that contributed to any **successes** in the projects you worked on?

supportive peers and good team leader and an excellent manager

Whiteboard

Team members being honest on what they did/didn't know

weekly goal

Knowledge Sharing sessions with all the team members

enforcing correct code coverage

What are the factors that contributed to any **successes** in the projects you worked on?

Having close experience levels and areas in the team increases success in certain subjets

Version control checks in place

communication

A good manager

Comment your code

group discussions

agile methodology

Good project Manager

Meaningful meetings

peer reviews

Proper leave planning

clear milestones and frequent meetings

Proper Requirement Gathering

Team management

Taking the effort to understand the technology/systems from other teams your code will be interfacing with

Granular specking of the task

excellent team leader and supportive peers

Time Management

Scoping the development into milestones.

having a

Daily 'Technical Office Hour'

defined set of requirements

Good in multitasking

Documentation on point

communication

Good code style

Daily meetings

continious testing of smaller modules

Communication

a good leader

sharing failure experience and the way to overcome it.

teamwork

communication

Communication

evryone achieved goals

Clear objectives/goals

Reasonable amount of team members

whiteboarding before coding.

Fear of failure

Proper Requirement Analysis

Working well under stress

deciding proper design pattern and abstractions

team willing to work overtime without complaints

Planning with the team and getting everyones feedback

Development is easier when you know business functionality

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Next time:

Software Functional Architectures

We'll be doing some breakout group work, and because of the Whiteboard limitations, I'm going to try Google docs. In advance, I will give you access to a directory on Google drive, using your tcd email addresses.

Any problems with that, let me know! Thanks.