

Personal Software Engineering

OVERVIEW

Food for thought

~~Write your name on sheet of paper number/answer the following:~~

- 1) What would be **your** ideal experience for this class?
- 3) What do you feel is **your** biggest weakness as a Software *person*?
- 2) What is the most important thing one needs to learn to become a successful Software Engineer?
- 3b) How would you go about improving on it?

What we want you to learn in SWEN-250

Learning the foundations of software

Using the basic tools (Command line, compilers, version control ...)

Writing 'clean' code

How to read/ interpret instructions (requirements)

Managing your time (your 'personal' software process)

Being an engineer (not just a coder)

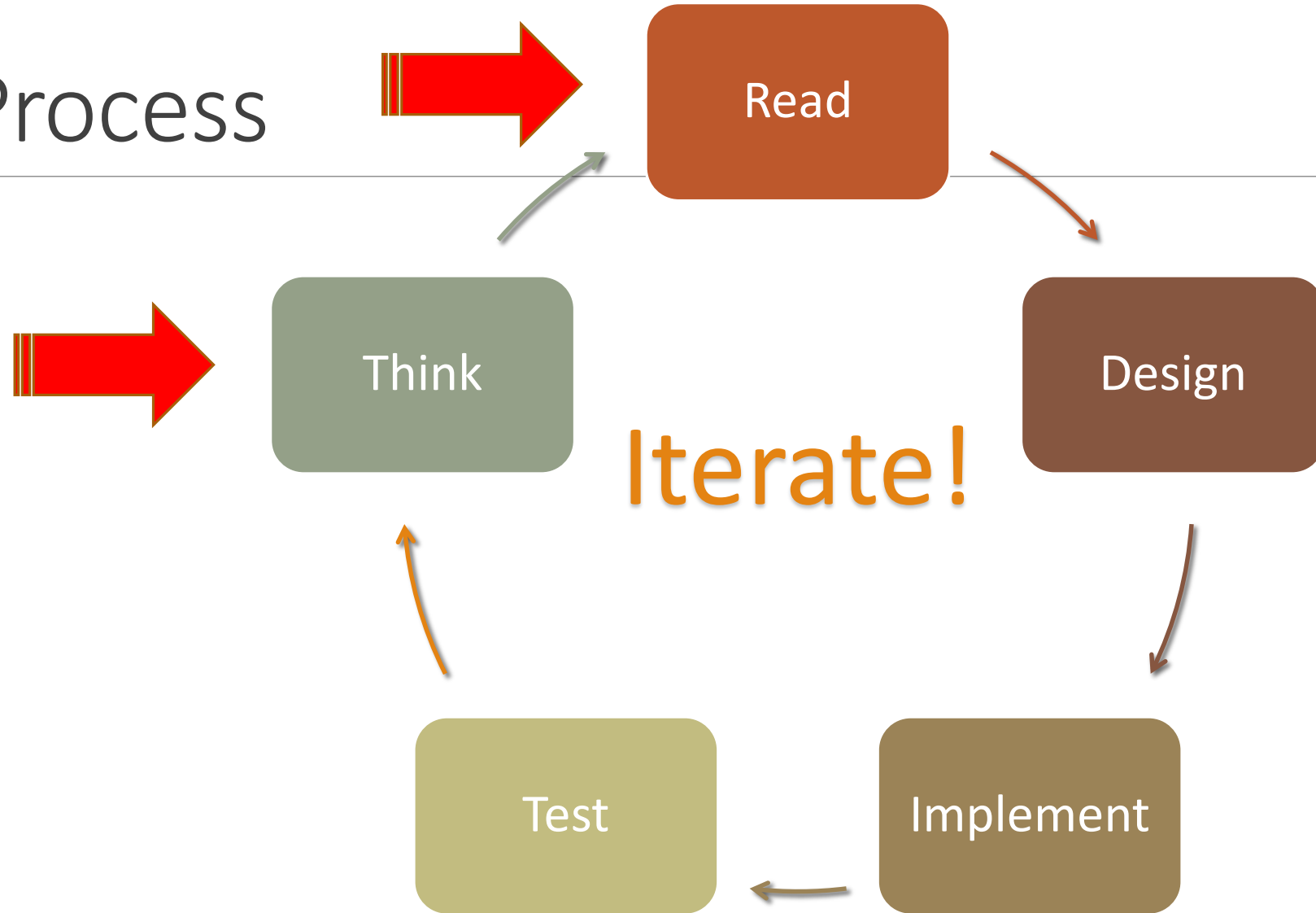
You will learn all this using Unix, C, C++, git ...

Topics

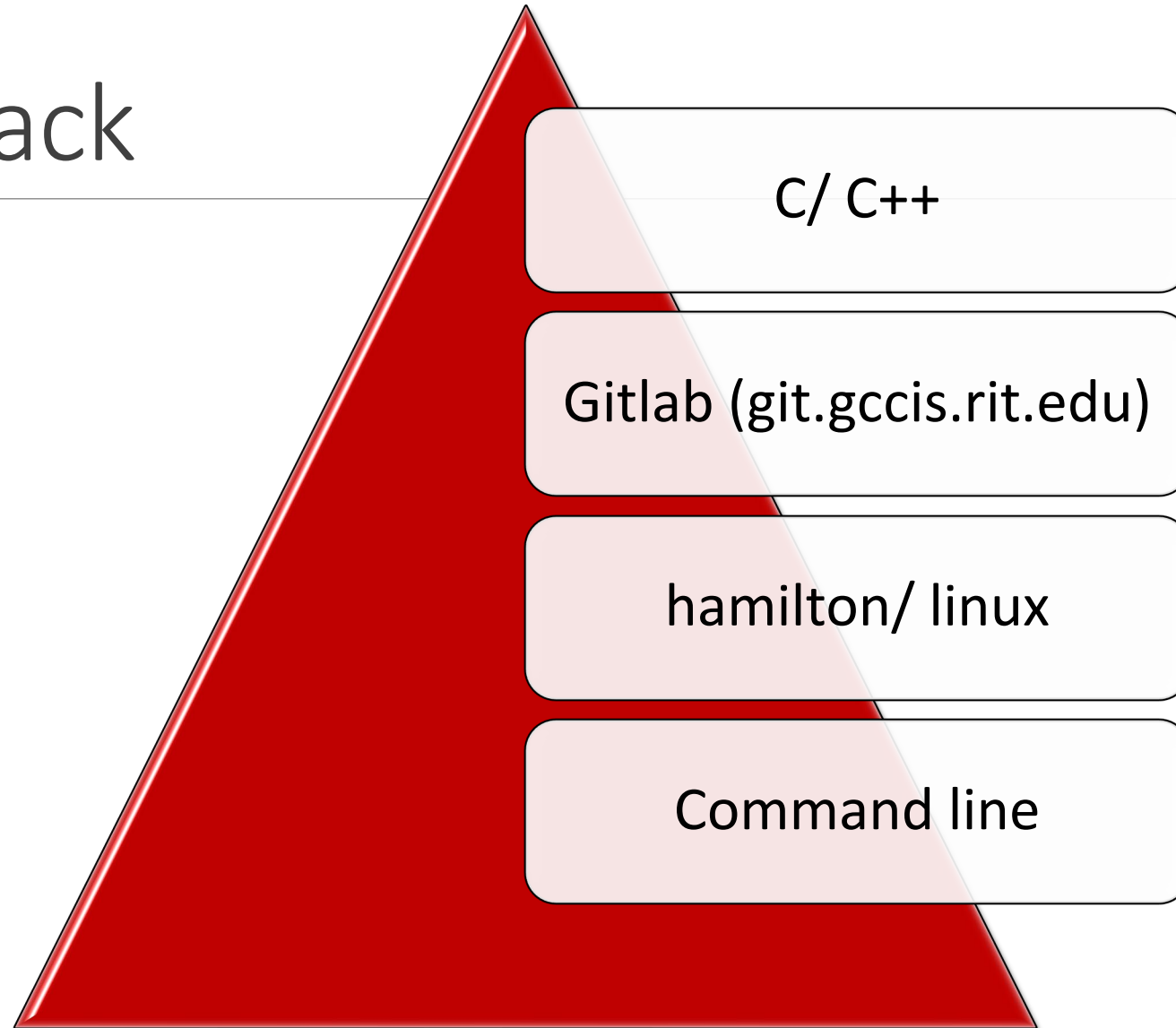
Syllabus and Schedule

Questions?

Process



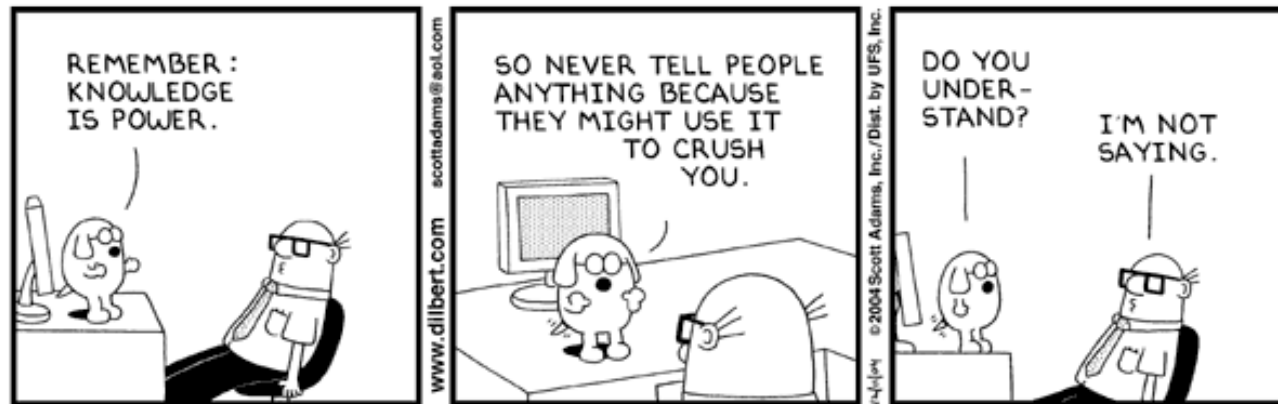
Tech stack



Other details...

- Always (double)check submission has been made
- Deadlines are stated on course schedule. You may be offered additional time during class but this won't be the norm.
- When in doubt:
 - Check the one-stop-shop schedule, the syllabus, myCourses
 - If after that you are still unsure, ask.
- Let's get to know each other and have fun!

To share or not to share ...

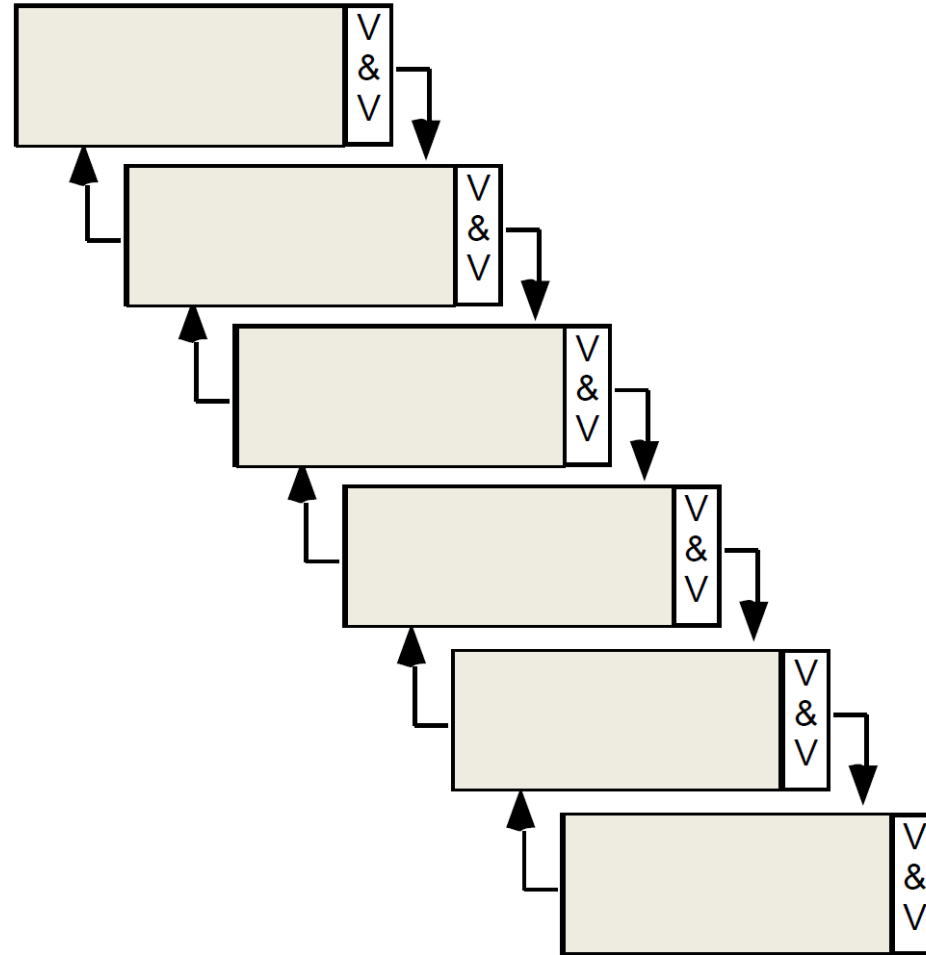


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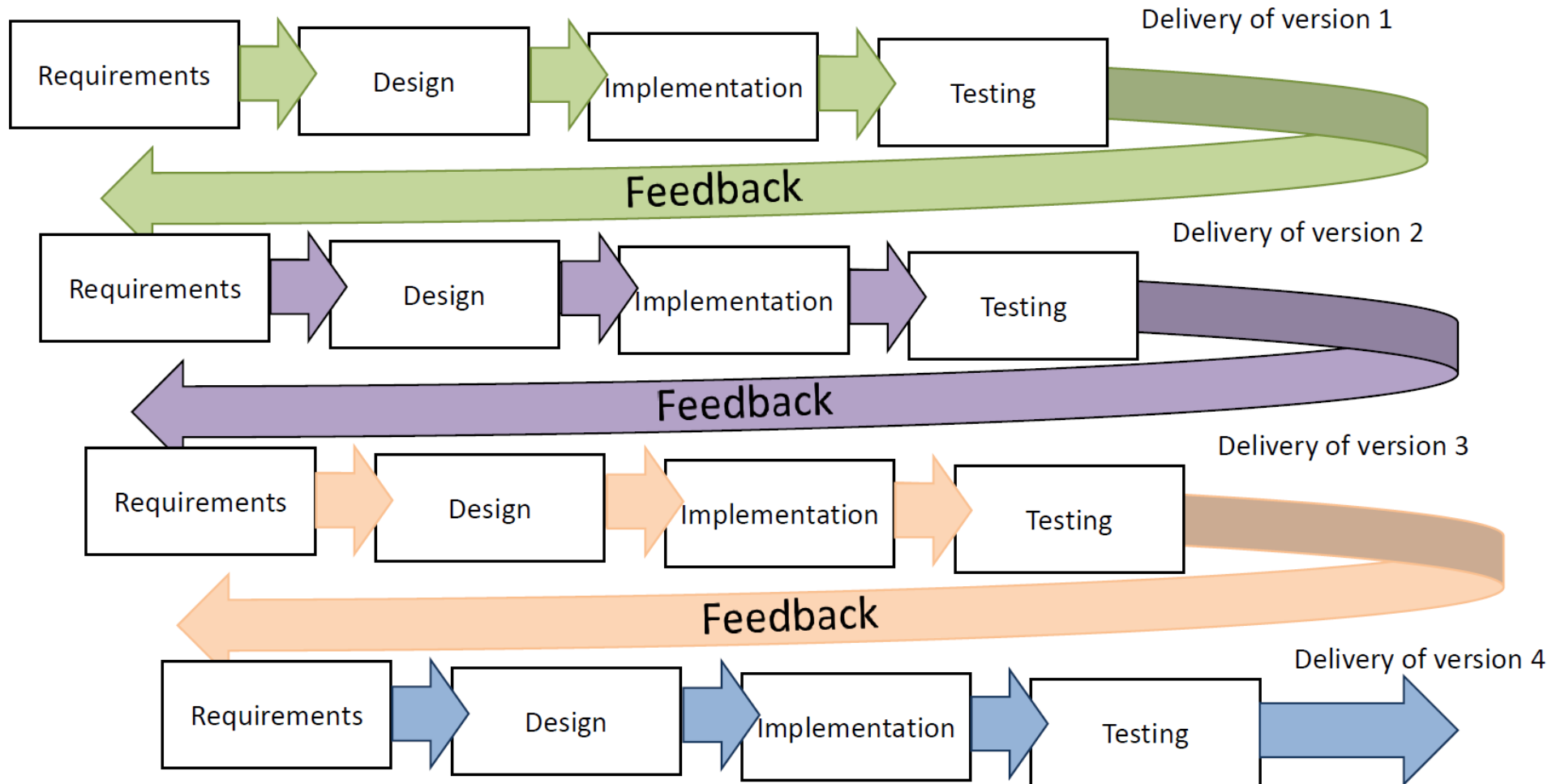
Programs versus Software Products

Programs	Software Products
Usually small in size	Large
Author himself is sole user	Large number of users
Single developer	Team of developers
Lacks proper user interface	Well-designed interface
Lacks proper documentation	Well documented & user manual prepared
Ad hoc development	Systematic development

The waterfall model



Incremental Development



Defining a Personal Process

- What is a Process?
- Why Personal?
- 5W's + H

Why What

Who When

Where How

- People + Process + Product + Technology

Defining a Personal Process (cont)

- Tools + Personal Habits
- Continuous and Incremental integration
- Reflection and Improvement
- Metrics for success

SE Accounts

- Not your RIT main account
- Same password as RIT main?

Linux Environment Intro

- ~~nitron.se.rit.edu~~—hamilton.se.r.it.edu

SE Dept. main shared server

- All SE students have an account (not the same as your RIT 'main' account)
- Z:/ → *Shared/ global drive. No matter where you login, you will see this mapped*
- ssh (secure shell)
 - See instructions on setting up and using
- Basic commands
- <http://www.ee.surrey.ac.uk/Teaching/Unix/>
 - Work on tutorial #1 and #2

How you do your work ...

On your desktop ...

- Open a terminal (e.g. Windows Terminal ... or powershell or mac terminal)
- Connect to hamilton (see instructions for hamilton, ssh)
- Navigate to your repo local folder (see instructions for gitlab)
- Edit/ compile/ test your code (all command line!)
- Push your code to gitlab (also command line)
- Repeat (often)