Programme Focussed Assessment

BSc (hons) Applied Software Development
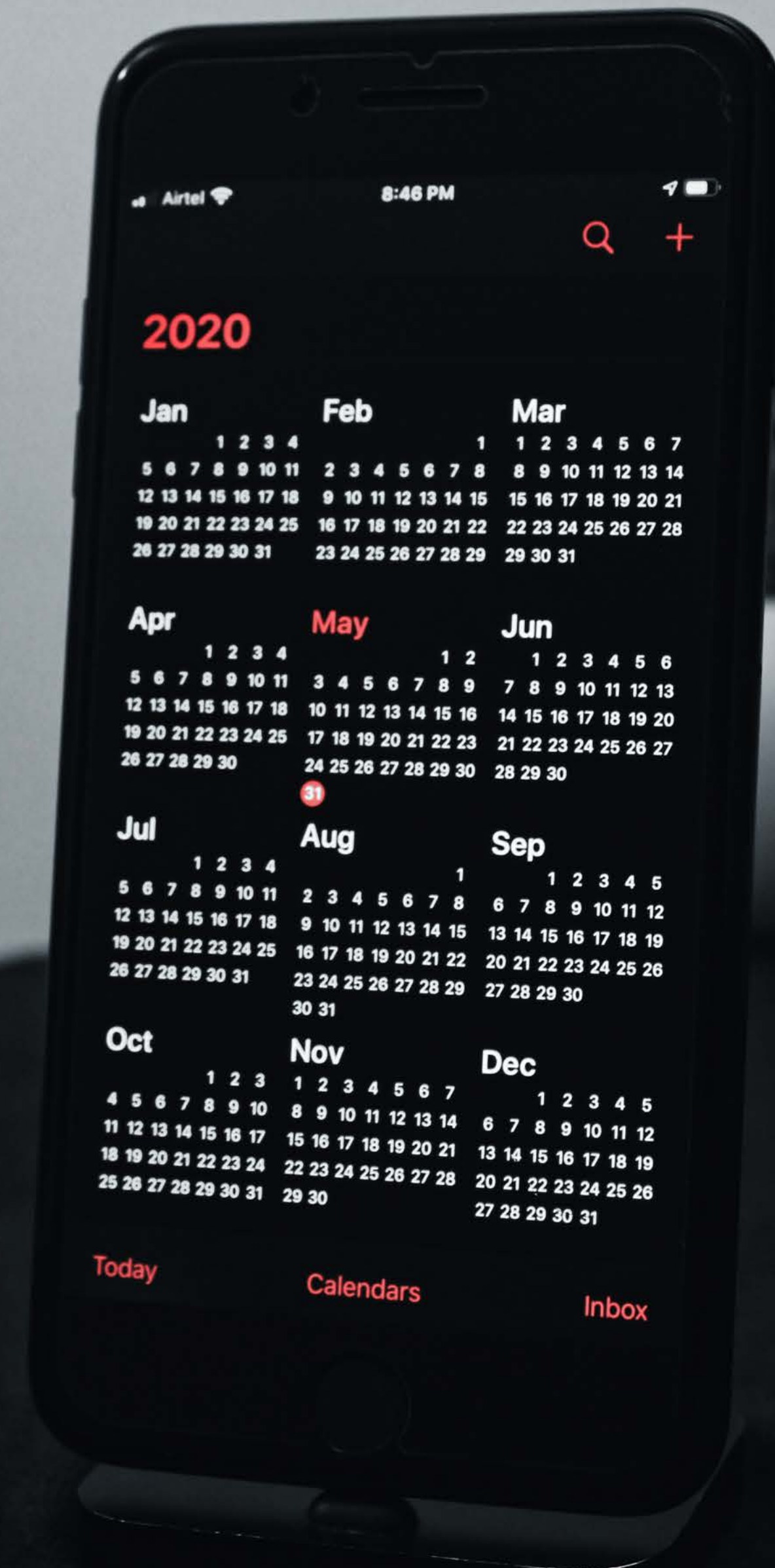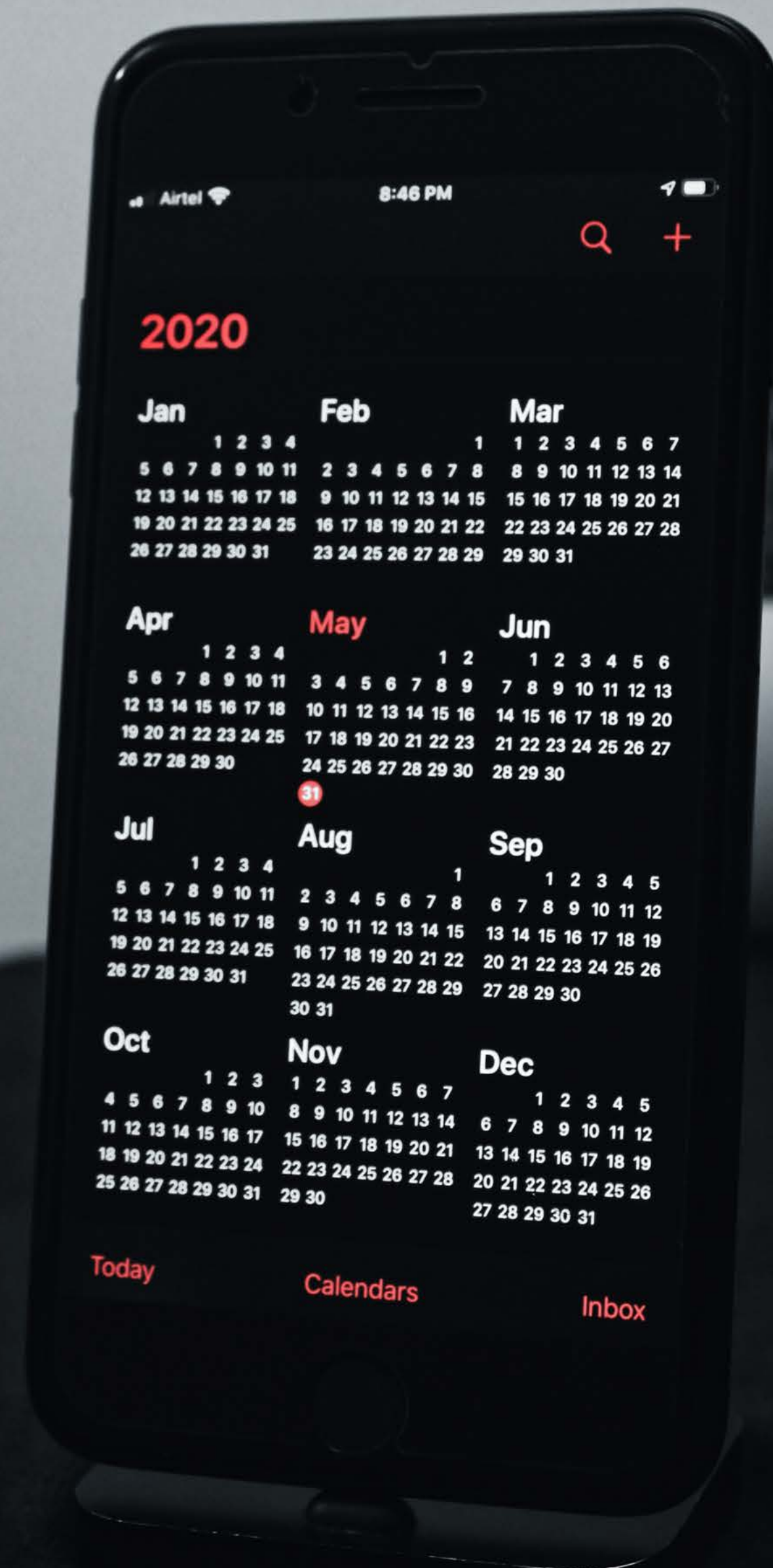
100%

Team projects (from day 1)

Students pick the type of evidence they submit

Students pick
when they
complete a
learning outcome

Students pick when they complete a module

Students pick the technology and programming languages

100%

Remote (distance learning)

So far (week 10):

- Statement of work with IBM

- 10 guest lectures from 6 companies, across 4 countries (one day three time zones!)

- Two international competitions

- Individual mentors for all students

- Students asked for some extra maths lectures!

How? Why?

Why go looking for change?

Seems like a lot of work...

How do software developers work?

(It's not what you think)

Prioritise:

- **Individuals and interactions** over processes and tools

- **Working software** over comprehensive documentation

- **Customer collaboration** over contract negotiation

- **Responding to change** over following a plan

The Agile Manifesto, 2001

"Business people and developers must work together daily throughout the project."

The Agile Manifesto, 2001

"Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done."

The Agile Manifesto, 2001

"The most efficient and effective method of conveying information to and within a development team is face-to-face conversation."

The Agile Manifesto, 2001

"The best architectures, requirements, and designs emerge from self-organizing teams."

The Agile Manifesto, 2001

"At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly."

The Agile Manifesto, 2001

Learning in silos

HNC + HND:

- **24 credits (~18 units)**

- **One credit covers team working**
  - Minutes of meetings
  - One collaborative report

- **Lots of individual assignments**

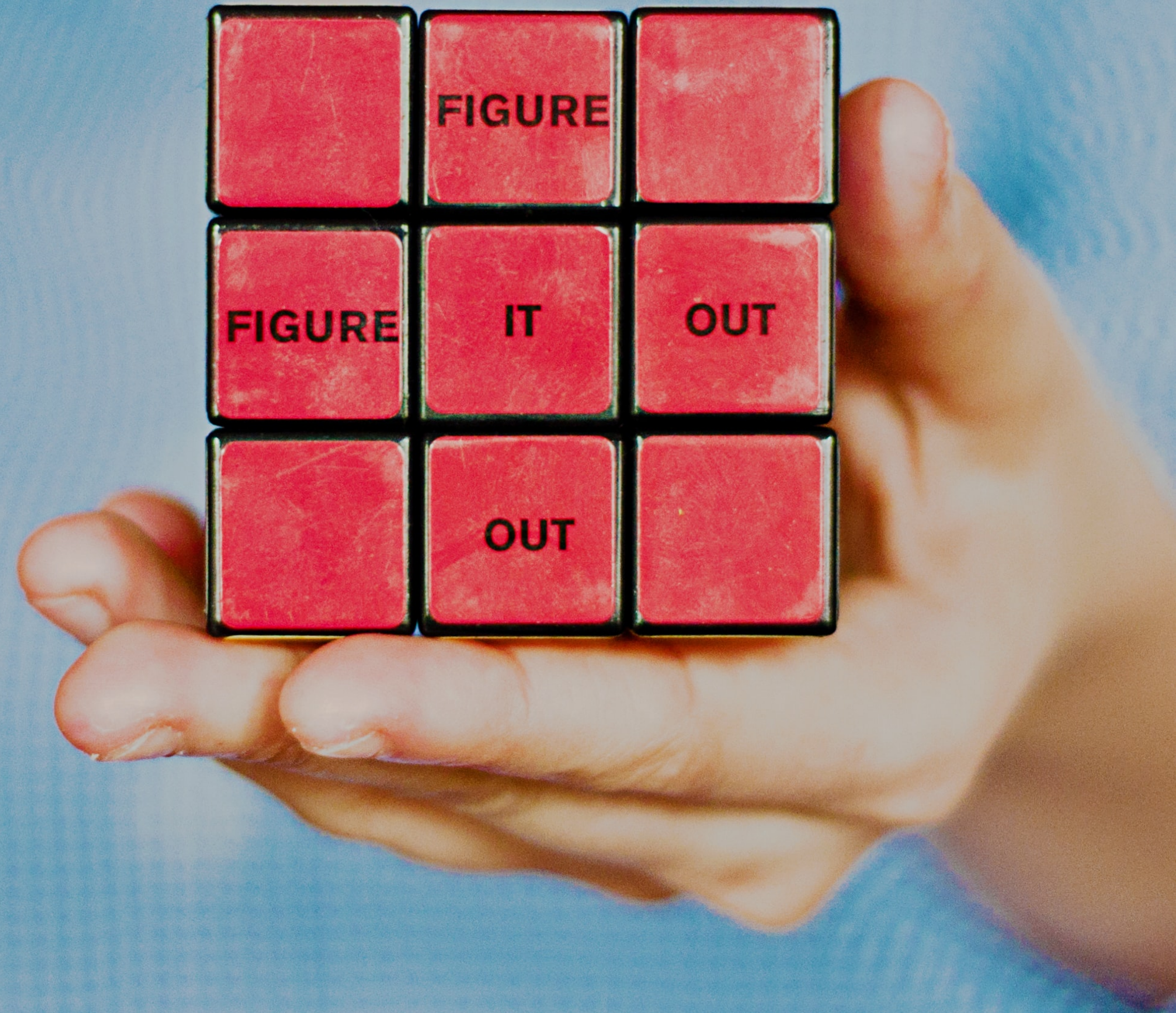# Why are we spending four years training software developers the wrong way?

What can we do better?

How did we write the programme documents?

Pieces of the puzzle:

- Students see projects, not modules.

- For this to work, we can't assess all the students on the same LO at the same time.

- We want to prioritise meta skills as much as technical skills.

- We need some tools!

Group	Semester	Module Code	Module Name	Core modules	Credits	Module Leader	UHI ID	Comments
CORE - must take all modules in this group	All Year		Multiplatform Development	Core	20	*unknown*	*unknown*	Theme is Software as a Tool. The module leader for parts 1, and 2 of these modules are expected to be the same member of staff.
	All Year		Software Services	Core	20	*unknown*	*unknown*	
	All Year		Software Architecture	Core	20	*unknown*	*unknown*	Theme is Delivery. The module leader for parts 1, and 2 of these modules are expected to be the same member of staff.
	All Year		Software Quality Assurance	Core	20	*unknown*	*unknown*	
	All Year		Data Transformation	Core	20	*unknown*	*unknown*	Theme is Data as an Asset. The module leader for parts 1, and 2 of these modules are expected to be the same member of staff.
	All Year		Data as a Service	Core	20	*unknown*	*unknown*	
			total credits for CORE modules		120			

Learning Outcomes

- Agile

- Business context

- Meta skill

- Security

- Technical

	Type	Details	Weighting	Minimum threshold/ pass mark	Submission week	Learning Outcome(s) assessed
Assessment 1	Group work	Portfolio of evidence, equivalent to 2500 - 3000 words in total. Evidence submitted in a variety of formats including essay, project, group work, practical, oral presentation, discussion board participation.	100%	40%	14 *	ALL

* Not really

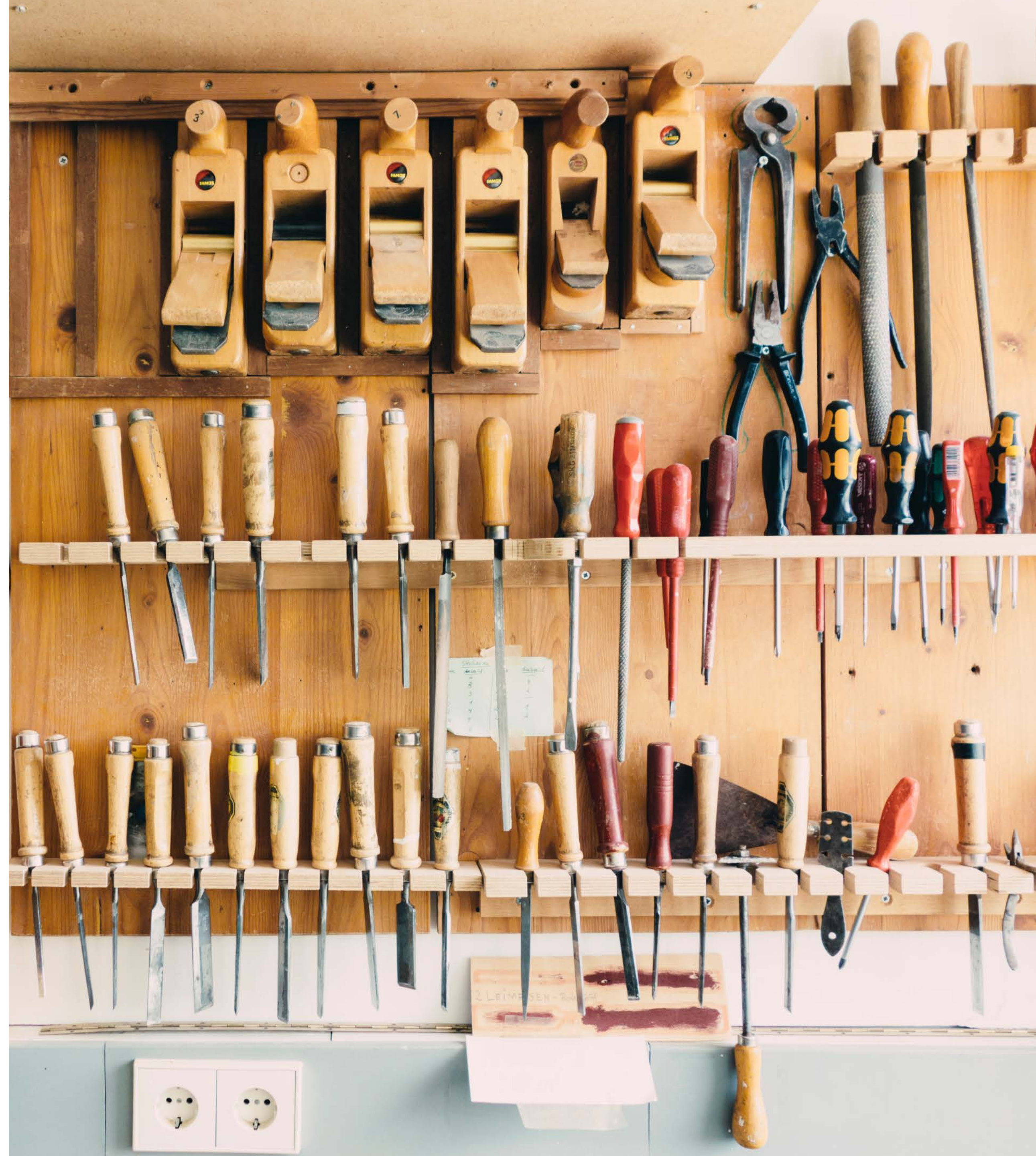| Themes	Year 1	Year 2	Year 3	Year 4
	Foundation	Portfolio	Creating Value	Industry Focus
Software as a Tool	Software development in a team environment	Multiplatform Development	Designing Software Products	Large Software Challenge
Delivery & DevOps	Continuous Development	Backend Delivery	Software Release Management	Legacy, Transformation and Maintenance
Data as an Asset	Databases	Data Manipulation & Data Services	Insight & Decision Making	Applied Research

Tools:

Webex

Slack *

JIRA + BitBucket *

Custom Tools *

Brightspace

Single final integrative assessment

Integrative assessment across stages or levels

Some cross-module integrated assessment

Extent to which assessment covers all the specified outcomes

Typical assessment on single module

Weighting of assessment in the final qualification

Peter Hartley & Ruth Whitfield, October 2012

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