2024 / 25

School of Science and Computing

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Module Descriptor

Project 2 (Development)
(Computing and Mathematics)

Project 2 (Development) (A14821)

Short Title: Project 2 (Development)

Department: Computing and Mathematics

Credits: 10 Level: Advanced

Description of Module / Aims

This module gives the student experience in developing a computing-related project by creating a product or a good prototype for a product. The student will present their work at the end of the module by submitting a final report, in addition to a poster, a short video, and a demonstration.

Programmes

	$\operatorname{stage/se}$	mester/status
PROJ-0169	BSc (Hons) in Applied Computing (International) (WD KACCM BI)	4/8/E
PROJ-0169	BSc (Hons) in Applied Computing (WD KACCM B)	4 / 8 / E
PROJ-0169	BSc (Hons) in Applied Computing (WD KCOMP B)	4 / 8 / E
PROJ-0169	BSc (Hons) in Computer Forensics and Security (WD_KCOFO_B)	4 / 8 / E
PROJ-0169	BSc (Hons) in Computer Science (WD_KCMSC_B)	4 / 8 / E
PROJ-0169	BSc (Hons) in Creative Computing (WD KCRCO B)	4 / 8 / E
PROJ-0169	BSc (Hons) in Multimedia Applications Development (WD KMULM B)	4/2/E
PROJ-0169	BSc (Hons) in Software Engineering (WD_KDEVP_BI)	4 / 8 / E
	BSc (Hons) in Software Systems Development (WD_KCSDV_B)	4/2/E
PROJ-0169	BSc (Hons) in Software Systems Development (WD_KDEVP_B)	4 / 8 / E
PROJ-0169	BSc (Hons) in Software Systems Practice (WD_KSOFP_B)	1/2/M
PROJ-0169	BSc (Hons) in the Internet of Things (International) (WD_KINTT_BI)	4 / 8 / E

Indicative Content

- Incorporate feedback from project supervisors/examiners, relating to the work done in Semester 1, namely high level analysis and design and the construction of prototypes and/or early iterations.
- Develop further and document a testing strategy to ensure the quality of each software module, each production-quality iteration and of the final product.
- Further develop the student's ability to write referenced academic and technical reports, principally a required final report, not less than 2000 words and not more than 8000 words, accompanied by a poster and a video.
- To provide the student with the opportunity (and requirement) to meet with a supervisor week by week and to complete the work according to the initial or a revised plan.
- To enable the student to apply their problem-solving and their technical skills to address implementation issues as they arise.

Learning Outcomes

On successful completion of this module, a student will be able to:

- $\it 1.$ Integrate feedback from Project $\it 1.$
- 2. Implement a fully tested, working system based on a specification and chosen development methodology.
- 3. Appraise the limitations and potential of the chosen methodology and resulting solution.
- 4. Validate the final system, with accompanying report, video and poster and competently discuss the problem area.

Learning and Teaching Methods

- Weekly meetings with project supervisors.
- Self-directed learning using library and Internet sources.
- Trying out carefully considered ideas to test if they are workable.

Learning Modes

Learning Type	\mathbf{F}/\mathbf{T} Hours	P/T Hours
Tutorial	6	
Independent Learning	264	

Assessment Methods

	Weighting	Outcomes Assessed
Final Project	100%	1,2,3,4

Assessment Criteria

- <40%: Failure to incorporate feedback. Failure to competently demonstrate understanding of work.
- 40%-49%: Produces working, tested system to minimum requirements. Produces full set of documentation. Able to demonstrate own work in competent manner.
- 50%–59%: As above and produces a working, tested system to meet most requirements (unless failure to do so is justified). Documentation and reports are clear and of good quality. Comprehensive knowledge of tools and technologies.
- 60%-69%: As above and requirements fully met unless failure to do so is justified. Demonstrates ability to solve unfamiliar technical problems. Shows good judgement in technology selection. Documentation shows evidence of ability to see limitations or potential in approaches used.
- 70%–100%: As above and produces an excellent, professional calibre stand-alone system with equally excellent documentation. Demonstrates ability to abstract ideas and reflect on the process.

Supplementary Material(s)

- Beck, K. Test-driven development: by example. Boston: Addison-Wesley, 2003.
- Fowler, M. and K. Scott. *UML distilled: a brief guide to the standard object modelling language*. Boston: Addison-Wesley, 2004.
- Lacey, M. The Scrum field guide practical advice for your first year. Harlow: Addison-Wesley, 2012.