DUNDALK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA DHÚN DEALGAN

APPROVED

PROJ I8009: Project

Module Details

Module Code:	PROJ I8009
Full Title:	Project APPROVED
Valid From::	Semester 1 - 2021/22 (September 2021)
Language of Instruction:	English
Duration:	2 Semesters
Credits::	10
Module Owner::	Stephen Larkin
Departments:	Computing Science & Mathematics
Module Description:	Students completing this module will undertake, individually, with appropriate supervision, a substantial project, in an approved topic, that demonstrates a thorough understanding, technical competency and proficiency of the tools, processes and skills acquired throughout the programme. They will develop and configure a DevOps pipeline to build, test, deploy and monitor a software environment in a specific domain with defined objectives. They will also produce well-structured product and process, technical documentation and present it appropriately.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	**Module Learning Outcome Description**
MLO1	Conduct background reading, research and user analysis to develop a set of requirements and give wider context for a complex technical project.
MLO2	Build, test and deploy a substantial artefact while demonstrating best practice in modern DevOps.
MLO3	Demonstrate a thorough understanding of Development, Configuration Management, Continuous Integration/Delivery (CI/CD) and Operations including software tools used for automation.
MLO4	Communicate technical information clearly and succinctly using a range of media.
MLO5	Critically assess project outputs, reflecting on the extent to which the objectives of the project have been reached, and discuss project outcomes in an oral/practical presentation.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).*
No recommendations listed

Module Indicative Content
Define the project goals and project plan Using Agile project planning methods and tools, design the project including releases and iterations. Design a release plan for the project and estimate the project deliverables at each iteration.
Develop, build and test the product Develop and build the project artefact ensuring a strict adherence to the DevOps process and using the tools and knowledge they have in software control management, continuous integration / delivery / continuous deployment and operations.
Documentation Document the project ensuring that it covers system requirements / design process, implementation and testing.
Assessment Discuss and defend project work through oral presentation and practical demonstration.

Module Assessment

Assessment Breakdown	%
Project	100.00%

Module Special Regulation

Assessments

Full-time

No Course Work

Project

Assessment Type	Project	**% of Total Mark**	100
Marks Out Of	0	**Pass Mark**	0
Timing	End-of-Semester	**Learning Outcome**	1,2,3,4,5
Duration in minutes	0		

Assessment Description
The project will be supervised and assessed by a supervision team comprising of subject experts with a collective knowledge in areas applicable in modern DevOps. The assessment will focus on evaluating the continuous delivery and integration through modern tools and practices, combining agile methods and lean concepts to facilitate implementation.

Marks will be allocated to the following project components:
Interim Submission 30%
Project Log 20%
Technical Documentation and Implementation 40%
Project Presentation & Product Demonstration 10%

No Practical

No Final Examination

Part-time

No Course Work

Project

Assessment Type	Project	**% of Total Mark**	100
Marks Out Of	0	**Pass Mark**	0
Timing	n/a	**Learning Outcome**	1,2,3,4,5
Duration in minutes	0		

Assessment Description
The project will be supervised and assessed by a supervision team comprising of subject experts with a collective knowledge in areas applicable in modern DevOps. The assessment will focus on evaluating the continuous delivery and integration through modern tools and practices, combining agile methods and lean concepts to facilitate implementation.

Marks will be allocated to the following project components:
Interim Submission 30%
Project Log 20%
Technical Documentation and Implementation 40%
Project Presentation & Product Demonstration 10%

No Practical

No Final Examination

Reassessment Requirement

No repeat examination
Reassessment of this module will be offered solely on the basis of coursework and a repeat examination will not be offered.

DKIT reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full-time					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Practical	Contact	Research Workshop	Every Week	2.00	2
Directed Reading	Non Contact	No Description	Every Week	2.00	2
Independent Study	Non Contact	No Description	Every Week	4.00	4
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	2.00

Workload: Part-time					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Practical	Contact	Research Workshop	Every Week	2.00	2
Directed Reading	Non Contact	No Description	Every Week	2.00	2
Independent Study	Non Contact	No Description	Every Week	4.00	4
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	2.00

Module Resources

Recommended Book Resources

Dawson, C.W.. (2015), Projects in Computing & Information Systems: A Students Guide, 3rd. Pearson Education, [ISBN: 1292073462].

Supplementary Book Resources

Kim, G. Humble, J. Debois, P. Willis, J.. (2016), DevOps Handbook: How to create world-class agility reliability and security in technology organisations, IT Revolution Press, [ISBN: 1942788003].

Jennifer Davis,Katherine Daniels. (2016), Effective DevOps, O'Reilly Media, [ISBN: 1491926309].

This module does not have any article/paper resources

This module does not have any other resources