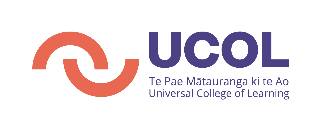
**Assessment**



**D202 Team Development Project**

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| --- | --- | --- |
| **Due Date**  Tuesday, 2nd November 2021 | **Faculty**  Humanities and Business | |
| **Due Time**  In Class | **School**  Business and ICT | |
| **Weighting**  45% | **Programme**  Bachelor of Information and Communications Technology | |
| **Submission Method**  In class observation and  delivery, Upload Sprint Retrospectives | **Learning Outcomes Assessed**   1. Undertake a team based iterative development project   3. Implement processes to ensure quality | |
| **Conditions**  This assessment is to be completed in teams |  | |
| **Lecturer**  Sandra Cleland | |  |

## Assignment Overview

In a team, you will follow an Agile Development Method to manage a given project.

1. Apply Agile Development Methods (SCRUM) including:

* Functions will be developed in bi-weekly ‘Sprints’.
* Teams will conduct a SCRUM at the beginning of each development session
* Coding will be carried out by ‘Pair Programming’ practices
* Product Owner will be consulted for feedback (at the very least as part of each sprint review)
* Product Owner prioritisation and change requests will be happily accommodated into the following ‘Sprint’
* Team members will take on a variety of roles within the group

1. Develop a prototype application as given in the requirements.

* All major functions have been implemented as prioritised by the product owner.
* Software quality processes have been applied:
* Source control with Git in Visual Studio
* code format & comments,
* analysis / design documentation
* testing.

All development is restricted to class time, research can be conducted outside of class but no coding.

## Project Requirements

Your team must design and develop an ASP.Net Core web application to aid the BICT lecturers and students in the BICT labs.

* The application should support multiple users and have two main user types (‘student’ and ‘lecturer admin’)
* The application should have a secure login.
* A class should be created for all courses
* A class should have a lecturer assigned to it
* A class should be populated with enrolled students
* A student could be in many classes (currently on Active Directory you belong to a D202 group, and also other groups for your other courses)
* Lecturers should be able to create a Test / Presentation Schedule for a class
* The schedule should be made up of customisable time slots for a date (defined by the lecturer at time of creation)
* Students in the class should be able to access the Test / Presentation Schedule and book an available time slot
* Lecturers should be able to remove a student from a time slot if they have made a mistake choosing their time
* Lecturers should be able to use the application to reset any student’s lab password

## Deliverables

The deliverables for the assignment are:

* Documentation from the Sprint
  + Sprint documentation will be in the form of the SCRUM wall and burndown charts
* Sprint retrospectives will be conducted at the end of each sprint (online tool preferred)
* Documentation of quality assurance procedures that the team has been using during the project development
  + Unit tests are present within the VS solution
* Design diagrams and documentation, at a minimum this will include:
  + ERD
  + Use Case Model
  + Product Backlog User stories
* Prototype application.

Be warned that the Product Owner may throw in additional deliverables at any time – the nature of the Agile Methods is the ability to adapt rapidly to change.

## marking Guide

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| --- | --- | --- | --- |
| **Criteria** | **Mark** | **Marks Awarded** | **Comments** |
| **Sprint Planning and progression**  Documentation of work allocation and progress for each bi-weekly ‘sprint’. Progression and resource allocation on each task is clearly shown. (ie. Sprint Backlog + Burn-down Chart (updated on the SCRUM wall) | 8 |  |  |
| **Daily Stand Up**  Scrum meetings are held weekly and documented | 4 |  |  |
| **Product Backlog (Scrum Wall)**  Documentation of product backlog and evidence of updates. | 4 |  |  |
| **Product Owner Consultation**  Product owner has been consulted during the sprint planning to negotiate feature priority. Owner requests for changes are implemented during the following ‘sprints’. Complete Features are demonstrated | 6 |  |  |
| **Quality Assurance Processes**  All required quality assurance processes are implemented and documented (source control, self-documenting code, analysis documents, inspection records, unit testing)  Sprint retrospectives are documented the end of each sprint | 10 |  |  |
| **Software Design Documentation**  Documentation of User Requirements (User Stories), Use case model, ERD, Acceptance tests | 8 |  |  |
| **Software Application**  Prioritised user requirements have been completed, where a feature is incomplete that code should be sufficient to demonstrate progress on the task. Marks awarded here based on complexity and amount of functionality completed | 30 |  |  |
| **Student participates in the group project**  Student has participated in all sprints and has made an equal contribution to the group development as reflected in lecturer observation log (10) | 30 |  |  |
| **Total** | | 100 |  |

Your attendance will be used as a multiplier for the assignment marks.

100% attendance makes you eligible for 100% of the earned group marks  
50% attendance makes you eligible for 50% of the earned group marks