



HIGHER DIPLOMA IN COMPUTER SCIENCE (NFQ – LEVEL 8)

Project Handbook 2022-23

Ver 23.01

Department of Computing & Mathematics

SETU WATERFORD

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1. Project Proposals

Please join the **#projects** channel in **Slack** to receive all announcements including deadlines. It is your responsibility to check-in regularly for announcements.

The purpose of the project is:

- To provide a Capstone for learning from the course
- Integrate knowledge from multiple modules
- Investigate new domains, technologies or procedures
- Document and record your work placement
- Showcase skills and achievements
- Formally research a new technical domain

You are invited to make project proposals on an individual basis. The proposal may reflect a deep personal interest, the interest of your supervisor or aspects of the technology and business processes of your work placement. It may be useful to conceive a project as a solution to a problem. Representative project examples include:

i. **Work Based Project / Package**

A project allocated by your work placement supervisor, representing a reasonably independent piece of work you have been implementing on your placement:

- A standalone **application** (e.g. web app, native mobile app)
- A **component** of a larger system
- A new or improved **workflow / business process** serving some need in the workplace (e.g. CI/CD continuous integration / continuous deployment)

ii. **Independent Project**

Unrelated to work placement, consisting of an implemented software system designed to explore or consolidate knowledge in a specific domain

iii. **Research Paper**

Exploring a specific topic or set of topics and developed to conference paper standard. May or may not be related to work placement. This project type is rare as the course is focused on software development implementation.

The project may be directly aligned with your work placement opportunity, or it may be independent of it. This may depend on the disposition of the industry providing the placement, your personal goals and interests, and the advice of your project supervisor.

- If you are **working in tech**,
 - You have choice of work based or independent project.
 - We recommend **work based project**. your workplace will usually allow you time to work on it as part of your day-to-day work.

- If you are **not working in tech**,
 - You are by definition doing an **independent project**.
 - You are incentivised to enhance your learning experience by undertaking **certification programmes** that we will make available.
 - Project grading for such projects will take this into account. **Project is capped 70%** unless you undertake certification (effectively costs you a grade)

- **Free Certification** options will be made available to all students irrespective of whether you are working in tech or not including Linux, RedHat. **Certification** can be undertaken by any student from September to August.

- In rare circumstances the project may take the form of a research project.

2. Project Timelines

Traditionally final year projects run over 2 semesters. This is an accelerated programme, and the project is accelerated also. However, to assist with balancing your workload, the project extends into a fifth semester and in some cases beyond.

The body of work constituting "The Project" will commence in Semester 4. Requirements, analysis, market & technical research, initial designs, and a sprint plan will be developed prior to your first supervisor meeting in Semester 5.

"The Project" can be divided into 4 phases:

i) Inception Phase:

Includes formation of the project concept,
Two initial meetings (half hour each) with project coordinator,
Draft and Final proposals + (optionally) interaction with workplace mentor.

The Project idea(s) will be discussed with the project coordinator at the first meeting. Ideally you should have a draft ready for each idea in advance. The action from this first meeting is to complete the Final Proposal within 2-3 weeks. A second meeting will review this document and explore and scope the concept further. The proposal is light (about 1-2 pages 500 words approx.)

The action from the second meeting is to complete and submit the Final Proposal within a week or so and then move on to the next phase. **Online Ethical Approval checklist should be completed after the proposal is finalised.**
<https://moodle.wit.ie/course/view.php?id=176894>

ii) RAMP Phase – Research, Analysis, Modelling & Planning (Analysis & Design Phase):

With the proposal finalised carry out user requirements, feature analysis, market analysis (comparing similar products), repo analysis (repos on Github or Bitbucket that address your idea. Maybe you can contribute to these projects or fork them?) & technical research, and initial designs. Choose your methodology, create user stories and organise them into sprints. Create a sprint plan (in Trello or similar) for the development phase.

Modelling

This might be informed by creating personas for the users of the system. Then creating scenarios/walkthroughs of the system (telling a story about what happens next). In parallel you can create the actual models / diagrams:

- data model,
- system model
- pipeline model
- wireframes for screens
- (consider using Miro, Figma, others)

With all of this done, the customer prioritises what features are needed for a minimal viable product (MVP). Maybe you use User Stories for this. Estimate how long it will take for each user story (Manage all this with Trello or Jira or an alternative)

Choose your Methodology - write a paragraph on your version of the chosen methodology (software engineering lifecycle/methodology)

Initial Research / Analysis / Design 2-4 weeks. Write up your findings and conclude, make your choices early.

Make a PLAN for the next 12 weeks -

e.g. use Trello/Jira/Miro to create cards for each task to be done. Estimate time for each on the card. Calculate realistically how much time you are going to spend in each week working on your project. Organise the cards in to stacks for each 2 week sprint (bearing in mind the estimated effort required and the time you have). Track your progress on the cards (RED for not done, Green Done, Amber in progress). Share with your supervisor in January. 14 weeks to code complete (end of march)

Sample Plan:

6 sprints of 2 weeks

- one for research and analysis
- half for initial designs, screens, data model, walkthrough
- last one left empty for fixes/fancy features

This leaves 3.5 sprints to implement everything (IMPLEMENTATION)

You may need to **rescope** your project - discuss with your supervisor in January.

Use **git** to manage revisions/commits (daily)

Design

- screens designs
- walkthrough
- data model

use pencil and paper to mock up screens. photograph them. put each one on a slide. use invisible buttons to jump to slide when click. This will give you an electronic paper prototype. Now write the walkthrough story/stories referring to the labelled screens. Update as necessary. Now look at the data that is required on each screen this informs the data model / database

This work will mostly be completed before and during the Christmas period, ready to be reviewed by your appointed supervisor in mid-January.

iii) **Development Phase (usually Jan, Feb and March):**

Realisation of the project as proposed or amended in agreement with your supervisor. One- or two-week sprints are recommended culminating in a meeting with your supervisor. Communication should be through Slack. Students should keep minutes and action points from each meeting. User stories can be reviewed, and the next sprint planned with your supervisor at each meeting. Students and Staff are advised to use Slack for communications as is the norm on this programme. During this phase students should be updating GITHUB with their code. They should also be working on

the Final Report each week. A first draft called the Interim Report is due in mid-February. A project web page (landing page) should be created and hosted (e.g. on Github or AWS) which can be amended and republished as the project proceeds.

Assuming 12-14 weeks for development (depending on whether you are working through holidays or not). This equates to 6/7 two-week sprints.

iv) Dissemination Phase:

Several deliverables are required for your project.

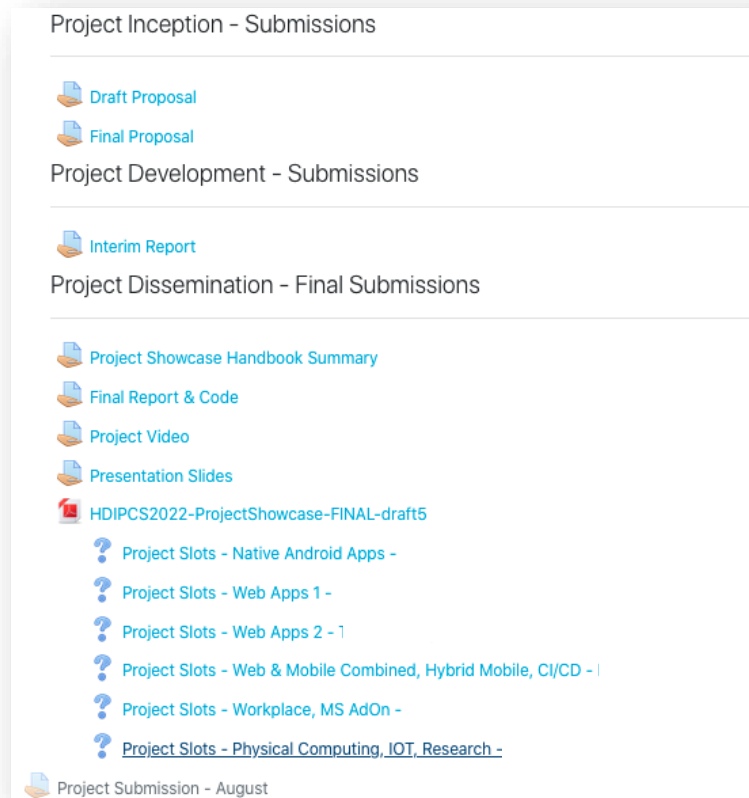
- **Project Website** (landing page with links to all deliverables)
- A single **GitHub Project Repo** (which may have links to sub repos)
- Creation of a **Showcase Entry** (project type, name, profile picture, project title(s), abstract, image representing the project, links to project website, github, etc.)
- Preparation of **Final Report**.
- **TRELLO** board(s) or similar.
- Creation and publishing of a demonstration **video**.
- Project demonstration/**presentation**.
- Delivery of final documentation.

To help you plan your project, these milestones will serve as a useful guide:

| Semester | Milestone | Description | When? |
|----------|-----------|--|---|
| 4 | 1 | Meeting 1 with Project Coordinator | October |
| 4 | 2 | Draft Proposal | Early November |
| 4 | 3 | Meeting 2 with Project Coordinator | Mid November |
| 4 | 4 | Final Proposal | Early December |
| 4 | 5 | Online Ethical Approval Checklist https://moodle.wit.ie/course/view.php?id=176894 <i>see Appendix 7</i> | Early December |
| | | RAMP Phase Research, analysis & design, Methodology, Plans | Dec-Mid Jan |
| | | Individual Project Supervisor Appointed | end of semester / start of next semester |

| | | | |
|---|----|--|----------------------------------|
| | | | |
| 5 | 6 | Interim Report | Mid-February |
| 5 | 7 | Showcase Entry | End of March / Start of April |
| 5 | 8 | Final Project Submission (code and final report) | +1 week |
| 5 | 9 | Video demo of project | +1 week |
| 5 | 10 | Presentation of Final Project | +1 week |

3. Project Submissions



During the project's development and realisation, a number of artefacts are created:

Proposal

This will articulate the project concept and nature and will serve to scope the work of realising the project. It may typically be less than **<2 pages**

Interim Report

This will be a substantial update on the progress of the project – and can be regarded as an early draft of the final report. It may be **up to 4000 words**, depending on the project type. Completing the RAMP phase will produce the contents expected at this stage. Completing it highlights the work required in completing the Final Report. This report is not marked. The interim report will be present and future tense – where are you now and what will be done in the remaining weeks.

Showcase Summary

A showcase is produced each year. Look at last year's book, to better understand its purpose. In order to automate its compilation, we will require several small details which will be requested through an online form or similar. Character limits will be enforced on each field.

- Your Name
- Use a clear up to date personal digital **portrait photograph** with a plain contrasting background, **square 300*300 in jpeg or .png**.

- a **project image** to represent your project (e.g. 1920*1080). This could be a screenshot or a composition of many screenshots. (Quick TIP: capture some screens, crop and paste onto a Powerpoint slide, and export as .png).
- **Titles** of the project for use in showcase handbook. A **professional/academic title** of the project e.g. "distributed library book retrieval system". In addition, an optional **"commercial" title** should be chosen e.g. "FindThatBook.com". (50 characters combined)
- **Abstract/Summary text 100 words max**, for use in showcase handbook
- **URL of Project webpage** (preferably shortened – e.g. using bit.ly). Ideally this is a web page which acts as a home/landing page for your project, you can add links to this page as the progress continues. Links might include your documentation, hosted video, presentation slides, link to site or app download, Slack, Trello, github repos, link to application, etc.
- **Project Type** {web app, mobile app, both, CI/CD, physical computing, OTHER}).
- **GitHub Project Repo**. Your project may have multiple repos which you should combine by providing a parent repo
- **YouTube Link** to Project Demo

Final Report

The final report is **up to 8000 words**. The final report is written in the past tense – what you did. Remember images don't affect your word count. Your final report should have most of the following features: a cover page, declaration of authenticity, acknowledgements, titles, preface, abstract, keywords, glossary, list of abbreviations, TOC, TOF, TOT, appendices, and a bibliography. Use Harvard Referencing style for **citations**. The TOC will vary depending on the project, write to the assessment criteria, and the development of the project. Make sure to include models, analysis, design, iteration plans, implementation details, reflection (what you achieved, learned, future development, problems encountered and solutions).

Use numbered headings and styles, page numbers, and Harvard referencing. Use numbered captions on tables and figures. Appendix 4 shows some samples of final report elements.

After the final report deadline, the upload facility will be closed (cut-off) and the reports downloaded and distributed to the panel for review.

Typically, the final report will be accompanied by associated codebase, which can be submitted as a **zipped archive** or other repository format (e.g. Github).

After completing and submitting the project (code and final report), there will be time to complete a demo **video**, and **presentation** before presenting in person.

Video

The **video** must be hosted (e.g. YouTube). Use your student account on YouTube. Make the video unlisted or public. Both the link to the video on YouTube and the original video will be submitted in Moodle. See Appendix 2 for more details on the video.

Presentation

When presenting the final project in person, you will prepare a presentation e.g. Powerpoint. This **presentation** will be submitted just before or straight after your presentation.

Artefact Usage

Artefacts produced and submitted as part of the project (including reports, images, video, code, and slides) may be used for future quality, training, and promotion purposes. Final projects may be archived, as part of the Institute's efforts to provide a repository of the interesting and valuable work carried out by its members and to help future students. Sensitive work can be excluded by way of NDA if needs be.

If your project is shortlisted for the Best Project Award you will be contacted to decide if you want to give permission for the project artefacts to be reviewed by the award sponsor.

4. Submitting

You will be required to adhere to the milestones outlined in section 2. All submissions are uploaded to Moodle. Soft copies are required. Hard copies are no longer required.

Where a project is using sensitive data from work placement, if NDAs need to be signed these should be submitted when completing the Handbook entry. When processing the Handbook entries, we will keep the details of the project private if NDAs are submitted at that stage. You will still need to submit all the deliverables as normal plus additional data as requested after NDAs are submitted.

5. Declaration of Authenticity

On the first inside page of any report, you should have printed out the declaration shown in Appendix 5.

6. Assessment

In preparing your project for assessment, you should consider both core criteria and a critical self-review:

PART A - Core Criteria (85%)

- **Model (15%)**
lightweight, relevant modelling, generally in accordance with a recognised process. For a software project this is most commonly expressed in a subset of UML or a set of appropriate diagrams. For other types of project, a different formalism may be more appropriate. e.g., UML, Architectural Model, Process Flow Charts, Data Models (E-R), UI wireframes etc.
- **Documentation (15%)**
project-related communication including, but not limited to:
 - learning logs (work placement),
 - writing well-constructed formal reports (tables, numbering, Harvard Referencing & citations),
 - sketches of ideas in diagrammatic/written form, wireframes, Trello board (used for plans and progress).
 - Submitting all requirements (draft & final proposal, Handbook entry, Project Web Page, Final Report, Video, Code, Github repo - history/releases).

In keeping with the ethos of the programme, all project communication should be through **#Slack**. Announcements will be made on the Slack **#Project** channel. Communications, interim submissions, documentation, etc. should be exchanged with your advisor in a private channel. Initially, these may be informal photos of notes/diagrams, and may evolve into more formalised minutes as the project progresses. **Trello** would be a good choice for planning. Work Placement **Learning logs** can help. If you are doing a workplace project as part of a team, you should show a breakdown of the elements you worked on, and the percentage that you are responsible for.

- **Implementation (30%)**
based on the modelling and the content of the reports. (i.e., Have you implemented what you said, or something different. If the latter, you should update the documentation before submitting)
- **Level (25%)**
appropriate mix of (a) originality, (b) innovation and (c) complexity. (Think of this as linked to the multipliers used in semester 1 assignments.)

Penalties will be applied for late submissions, exceeding the character count, word count, or maximum durations specified, or not submitting what is requested.

PART B - Critical Self-Review (15%)

- what you **learned (5%)**
- what you **achieved (5%)**,
and in what direction the project might be taken if more time was available (**future development**)
- **problems** encountered (**5%**)
how they were addressed and solved

In addition, you must attend all meetings with your supervisor. There are no marks allocated for these, but failure to attend, without good cause, will disrupt the assessment procedure.

Assessment Process

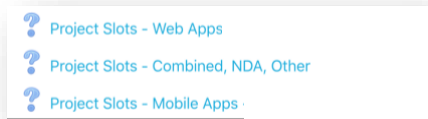
Marking is done at the end of the project.

Project Grade categories are considered (outstanding 85+, excellent 70-84, v.good 60-69, good 50-59, fair 40-49, fail <40)

Before presentations are made :

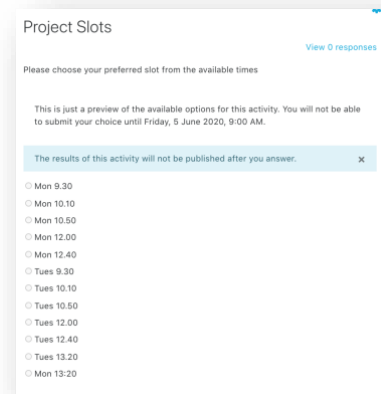
- A handbook will be created grouping the projects by type.
- Presentations will be scheduled no more than six per day.
- A panel of 3+ lecturers will be tasked with reviewing all projects. The panel makeup will be communicated to all in the week before presentations. For large classes, additional panels may be created and each panel will look at a subset of all projects.
- Your supervisor will provide marks to the panel. These are for indicative purposes only.
- All panel members will have viewed your demo video.
- At least 1 member will have read your report in detail.
- At least 1 member may have reviewed your code repos.
- All panel members will be present for your presentation. Your supervisor may attend also.
- After each presentation, the panel member will have an indicative grade or ranking for each project.
- After all presentations have been completed, the panel will meet to discuss the projects in a collegiate fashion, ranking the projects for each category initially starting with highest and lowest working towards the middle. When all project categories have been completed, the panel will break.
- On return, the projects within each category will be merged.
- Then, marks will be applied based on the based on the Project Grade categories.
- The project marks will be shared with all supervisors
- If there is an unacceptable difference between a supervisors suggested mark and the panels allocated mark, the project and mark can be reviewed again.
- Where there are more than 1 panel, there will be an additional step of reviewing and merging the results of each panel.

Assessment takes place at project demos. Typically, a group of similar project types will be scheduled on a given day, at half hour or forty-minute intervals.



A timetable of available slots will be made available for booking on a first come first served basis:

You will be able to book your project slot on Moodle on a first come first served basis (providing you have uploaded all requirements previously).



Assessment Examiners

There are three examiner categories:

- (a) The Supervisor
- (b) Project Panel
- (c) the External Examiners

The Supervisor will suggest a set of marks.

The Project Panel will consider these marks in the context of seeing all projects and will decide the final mark in a collegiate fashion.

The External Examiner will review the marks and may suggest changes.

7. Project Supervision

Each student will be appointed an academic supervisor to provide supervision and advice. The norm will be that you will have a coordinator for 2 meetings in semester 4 and a supervisor appointed in semester 5. It is recommended you discuss the project progress at regular intervals with your supervisor, usually face to face (e.g. Slack/Zoom call)

Project Meetings

You have a quota of 12 half hour sessions with your supervisor. This may be broken up as needed.

Typically, there may be just 1 or 2 * half hour meetings in the inception phase with the project coordinator.

Most meetings will occur in semester 5 during the development and dissemination phases. Usually, each project student will have a weekly meeting with their supervisor consisting of (12 half hour meetings or 6 one-hour meetings) at the discretion of the supervisor and workplace mentor. He or she will show his/her progress, emphasis being placed on risk-reduction from week to week as issues

associated with (a) project requirements gathering, (b) technologies and (c) skills building are addressed.

For each meeting, brief **minutes** and **action points** should be taken by the student. Consider creating cards and updating progress using Trello or similar (make sure to give you supervisor access). Keep a summary each week outlining what was agreed and what is to be done for the next meeting. Follow-on meetings can start by reviewing these minutes and action points.

If either the supervisor or the student is unable to keep a project-related appointment, the other party will be informed as soon as possible using #Slack. Naturally it will be rare for such cancellation to take place.

8. Project Finishing Date

The module will have an oral examination/demonstration in April/May. It is crucial to get started early and work on it each week, particularly in the implementation and dissemination stages.

Projects will be completed at this stage

Repeats will submit in August.

For capped independent projects where students want to complete certification over the summer, the project placement module is deemed to be complete in August. Initial Project marks may be updated to take account of certification for those not working in technology.

Project Marks will not officially be released until September irrespective of when you complete

Appendices

APPENDIX 1: Project Proposal Outline

- Your project proposal must have a **title** (see below).
- Project Type (Word Based / Independent / Research)
- Project Category (Web App, Native Android, Hybrid, CI/CD PIPELINE, RESEARCH, Other)
- Your project proposal will be about **four or five hundred words long**.
- Please re-read your proposal when written, and amend it if necessary, to ensure that it is easy to read and makes sense to another person.
- You may wish to include a diagram or two.
- You should provide a list (with a title) of **technologies** that your project will employ, both software (including programming languages) and hardware.
- You should provide a list (with a title) of **tools** and frameworks that you intend to use.
- You should indicate the project **process** you intend to use: for example: whether you intend to implement your software all at once or as a series of production quality releases where more functionality is added as you go along.
- You should indicate other parties with whom you are collaborating or parties for whom the software is being written. These are sometimes collectively referred to as **stakeholders**.
- A title page is important to ensure that we can easily file and retrieve your report. Please provide a page at the front carrying the following information:
 - A title of your proposed project, for example: *Distributed Book Retrieval System* or whatever is appropriate.
 - The words *Project Proposal* below that in a smaller font.
 - Your name and student number
 - Your programme: Higher Diploma in Science in Computer Science.

APPENDIX 2: Video Guide

This is a simple video ideally 3-7 mins in duration, but we will allow up to a maximum of 10 minutes (The panel are instructed to stop playing at 10 minutes). It is a demonstration of the key features of your project. It acts as a backup in case you can't get the live demo working on presentation day. It also provides a convenient way to see the project working. It helps focus the mind on the creating a good presentation.

It is not expected to be a Hollywood production. Depending on the project you might:

- use a screen recording to do a walkthrough of the software implemented
- use a phone (in landscape mode) to record a video of some hardware you are controlling with software.
- Do a video recording highlighting the key elements of a research project

The video must have voice commentary (your voice) explaining what's happening. It must use your voice explaining what is happening. Typically, I would suggest start by introducing yourself "Hi my name is X" and my final project is called Y. One sentence description of the system. Then demo.

Most systems have registrations & logins, we take it for granted that this functionality is working at this stage. By all means, login/register if you wish (quickly) but don't labour the point and don't waste too much time in demonstrating how great your login/registration is. We are more interested in what makes your system different. Focus on the key aspects of your project.

If recording mobile, ideally check if your software has a trails feature, which makes it much easier to see the user interaction.

Video Software Recommendations:

Desktop:

You've already used OBS to record videos, so this is a fine way of recording the desktop.

Camtasia is the best screen recorder/editor on PC.

ScreenFlow is the best screen recorder/editor on Mac.

Demos are available (don't worry about watermarks on any software as long as they are not excessive)

Jing is free.

Loom is free.

There are others.

Mobile:

Built in screen recorders.

Camtasia & ScreenFlow record from your mobile device too.

Android:

DU Recorder Screen Recorder

iOS:

RecordIt!::Screen Capture

Submitting

There are **two parts** to submitting:

URL

Upload your video to YouTube or similar (make it unlisted or public). Copy the URL. Paste it in the 'Online text' textbox. Highlight it and make it a hyperlink by clicking the link button and pasting the URL again.

FILE

Upload your video file to Moodle also in the File submission box - you can just drag and drop. It will most likely be an mpeg4 encoded video (.mp4, .mkv)

Project Video

<https://tutors-design.netlify.com/talk/wit-hdip-comp-sci-2018-sept-online.netlify.com/topic-01-project/talk-5-project-handbook/project-handbook.pdf>

File submissions

Maximum file size: 2GB, maximum number of files: 3

File

ZoomBreak...

Online text

<https://youtu.be/w8Uwy-9YXkY>


Save changes Cancel

When you click Save, your Moodle submission will look something like this.

Project Video

<https://tutors-design.netlify.com/talk/wit-hdip-comp-sci-2018-sept-onsite.netlify.com/topic-01-project/talk-5-project-handbook/project-handbook.pdf>

Submission status

| | |
|-------------------|---|
| Attempt number | This is attempt 1. |
| Submission status | Submitted for grading |
| Grading status | Not graded |
| Due date | Sunday, 31 May 2020, 11:55 PM |
| Time remaining | 2 days 11 hours |
| Last modified | Friday, 29 May 2020, 12:11 PM |
| File submissions | <div><div> ZoomBreakoutRoomGuide.mp4 +</div><div>29 May 2020, 12:11 PM</div><div>Export to portfolio</div></div> |

Submission comments
▶ [Comments \(0\)](#)

Online text



[Export to portfolio](#)

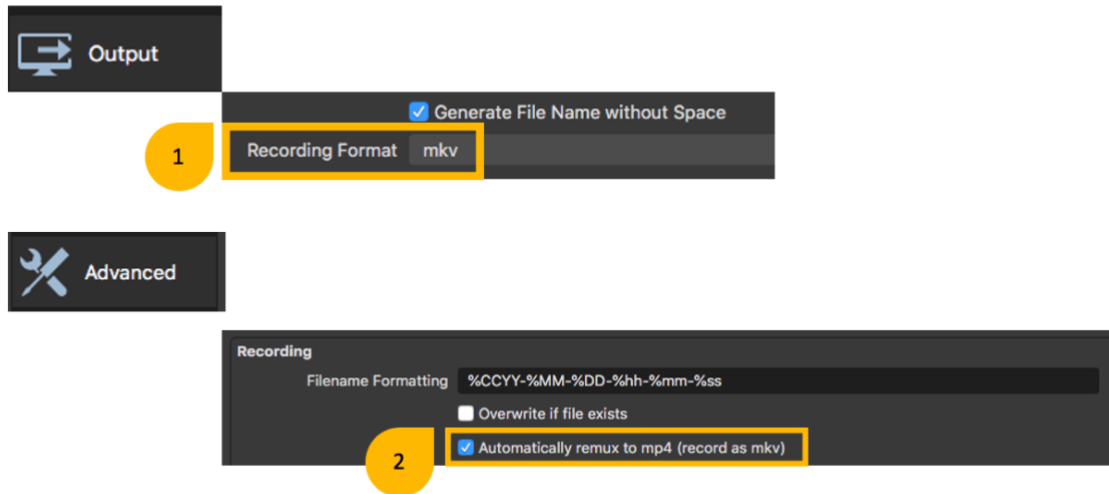
[Edit submission](#)

[Remove submission](#)

You can still make changes to your submission.

Additional:

Tip for recording in OBS



.mkv & .mp4 about 10 seconds after you press stop

APPENDIX 3: Presentation Guide

The week before your presentation, create your slides. These will be submitted to Moodle. It's a good idea to arrange & rehearse presentations a few days before with each other. Honest critiquing will help everyone improve.

You have up to **15 minutes to present**, followed by **5-10 minutes of Q&A**. So, this time will need to be managed well.

Planning your Presentations:

Part 1 – Introduction

1. Introduce yourself.
2. Give the name of the project and your short abstract (1 or sentences)

Part 2 - Sales Pitch (everything is great)

1. Demo what you've got
(This is ideally a live demo, but just in case it's good to have a recorded backup)

It's a good idea to use **real data** to help with understanding the system (i.e. don't use "test")

Part 3 - Academic Explanation (SUMMARY OF KEY POINTS OF YOUR REPORT)

1. i.e. how did you built it from start to finish? Analysis, design, plans, methodology, artefacts created along the way.
2. Summarise sections of your final report. What you learned. Key milestones. (demo videos). Problems encountered & solutions. Future development

Part 4. Wrap up

Any Questions + ask if anyone wants to try it out (live demo again)

Typical Timing

Part 1 & 2 will take 5 mins.

Part 3 & 4 will take 10 mins.

Q&A will take 5-10 mins

Tips

- Split up what you want to say and allocate a time budget to achieve it.
- Summarize and Visualize
- Use images instead of text where possible
- Short videos can also help
- A good yardstick is have no more than 7 points on the screen at any given time
- Max of 25 words on screen (there are exceptions)

JUNE 2020

“RUNNING SOCIAL”
Cloud Native App Development Pipeline
FINAL REPORT

NAME:

STUDENT ID:

LECTURER: COLM DUNPHY

MODULE: PROJECT

COURSE: Higher Diploma in Computer Science

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Current Features

✓ Objectives

Main Focus of the Project

Minor goals of the Project

✓ Methodology

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Programming Languages

Deployment Technologies

3rd Party Solutions/Technologies

✓ Project Plan

Phase 1 Inception

Phase 2 Development

Phase 3 Dissemination

✓ Development

Proof of Concept

Decouple UI from back end Server

> Building Container Images and Setup of Docker-compose

> Evaluating OpenFaas for Serverless functions

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APPENDIX 5: Declaration

I declare that the work which follows is my own, and that any quotations from any sources (e.g. books, journals, the internet) are clearly identified as such by the use of 'single quotation marks', for shorter excerpt and identified italics for longer quotations. All quotations and paraphrases are accompanied by (date, author) in the text and a fuller citation is the bibliography. I have not submitted the work represented in this report in any other course of study leading to an academic award.

Student..... Date

Work Place Mentor..... Date

APPENDIX 6: Academic Writing Workshops

If you need help with academic writing you should attend the Academic Writing Workshops which are delivered remotely. MS-Word, Mybib.com, Zotero, and Mendeley are recommended for managing references.

Sample Schedule

| Academic Writing Workshops 2021-22 | | | | |
|---|------------|----------------|-------------|--|
| Week | Day | Date | Time | Topic |
| Week 1 | Monday | 27th September | 5.15pm | Academic writing Overview |
| | Friday | 1st October | 5.15pm | Academic writing Overview |
| Week 2 | Monday | 4th October | 5.15pm | Essay Planning & Topic of Students Choice |
| | Friday | 8th October | 5.15pm | Essay Planning & Topic of Students Choice |
| Week 3 | Monday | 11th October | 5.15pm | Referencing & Topic of Students Choice |
| | Friday | 15th October | 5.15pm | Referencing & Topic of Students Choice |
| Week 4 | Monday | 18th October | 5.15pm | Reading Effectively |
| | Friday | 22nd October | 5.15pm | Reading Effectively |
| Week 5 (Revision) | Tuesday | 26th October | 5.15pm | Revision Workshop |
| | Wednesday | 27th October | 5.15pm | Revision Workshop |
| | Thursday | 28th October | 5.15pm | Revision Workshop |
| Week 6 | Monday | 1st November | 5.15pm | Editing & Proof Reading, Assignment Checklists |
| | Friday | 5th November | 5.15pm | Editing & Proof Reading, Assignment Checklists |
| Week 7 | Monday | 8th November | 5.15pm | Literary Reviews & Reading Effectively |
| | Friday | 12th November | 5.15pm | Literary Reviews & Reading Effectively |
| Week 8 | Monday | 15th November | 5.15pm | Academic Toolkit & Time Saving Tips |
| | Friday | 19th November | 5.15pm | Academic Toolkit & Time Saving Tips |
| Week 9 | Monday | 22nd November | 5.15pm | Referencing & Report Writing |
| | Friday | 26th November | 5.15pm | Referencing & Report Writing |
| Week 10 (Revision) | Tuesday | 30th November | 5.15pm | Revision Workshop |
| | Wednesday | 1st December | 5.15pm | Revision Workshop |
| | Thursday | 2nd December | 5.15pm | Revision Workshop (Possible Drop in Clinic) |

APPENDIX 7: Sample Ethics Checklist for School of Science & Computing

1 * Are you a student on a **final year undergraduate** programme, a **taught postgraduate** programme, or are you conducting a **research project**?

☐ Final Year Undergraduate
☒ Taught Postgraduate
☐ Postgraduate Research Project
☐ Other Research Project

2 * What is the **working title** of your project?

MyApp - Full Stack Web Application

3 * Who are the project **supervisors/advisors/principal investigators**?

Colm Dunphy

4 * Does your project involve **human experimentation**? (e.g. clinical trials)

☐ Yes ☒ No

5 * Does your project involve **animal experimentation**?

☐ Yes ☒ No

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7 * Does your project involve the use of **human remains/cadavers/tissues/cells/biological fluids/embryos/foetuses**?

☐ Yes ☒ No

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9 * Does your project involve the use of **animal tissues or biological fluids**?

☐ Yes ☒ No

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11 * Does your project involve the **collection of rare or protected plants**?

☐ Yes ☒ No

12 * Does your project involve the generation or use of **genetically modified (GM) plant material**?

☐ Yes ☒ No

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14 * Does your project involve the use of **ionising radiation**? (e.g. use of gamma ray spectrometry)

☐ Yes ☒ No

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16 * Does your project involve the **collection of any new (or primary) data** from **individual people or groups**?

☐ Yes ☒ No

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21 * Does your project involve **persons under the age of 18 years** (i.e. minors), or **any vulnerable groups**? (e.g. prisoners, refugees, those in care, addiction service users, etc.)

☐ Yes ☒ No

22 * Does your project involve the use of **existing (or secondary) data**? (i.e. data originally collected for another purpose)

☐ Yes ☒ No

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25 * Before you submit the Ethics Checklist, you must **confirm all of the following**:

☒ I understand that the Ethics Checklist is a formal declaration.

☒ I have answered all questions on the Ethics Checklist carefully and truthfully.

☒

The supervisor/advisor (or principal investigator) for the project is present as the Ethics Checklist is being submitted, or they have given me explicit permission to submit it in their absence.

☒ I have had adequate ethics training and/or instruction prior to completing the Ethics Checklist.

☒ I understand, and agree to abide by, the general ethical principle of "do no harm" for this project.

☒ I will follow the instructions given in the Feedback Report.

26 * Authentication Code (ask your project supervisor/advisor for this code)

Enter Student Number:

Enter the Authentication Code below and click "Verify Code"

Note: If an INVALID authentication code is used then this submission is NULL and VOID

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Submit Ethics Checklist