Final Codebase, Documentation and Communication Task Sheet

Key Information

Weighting: **60%** (DECO3801) **| 60%** (DECO7381)

Learning Objectives: **L01, LO2, LO3, LO4, LO5, LO6, LO7**

Sequence: Yes. The course has EAIT ADA approval for two sequences.

Due dates and submission: *This is a sequenced assessment item with multiple deadlines. Refer to milestones below. Only the final project submission contributes to the grade.*

Introduction

The main work you will carry out in this course is the completion of a project where your goal is to design, develop, and implement a significant software or IT prototype. Working in interdisciplinary teams, you will follow a project brief with industry-level deadlines, applying your technical and professional skills to tackle real-world challenges. This includes demonstrating effective teamwork, project management, communication, and critical thinking while addressing user experience, ethics, and security considerations. The course enables you to consolidate your learning, showcase your capabilities, and prepare for the complexities of professional practice.

Interim Project Submissions

The project will be delivered throughout regular studio participation during the semester and checked via four project interim submissions. At each stage, you should consider the interim submission as a snapshot of where your project has progressed to and an opportunity for the teaching team to provide feedback. The four milestones are as follows:

Interim Project Submission V1 – Week 5

Due date: *Friday, March 28, 15:00 AEST*
This is a compliance check submission. Your team is expected to submit any material that you have collected as your starting point (code, documents, notes, diagrams, etc.). These should be combined into a zip file and submitted to Blackboard as the starting point for your project.

Your tutor will check that this has been submitted to Blackboard. Your marker will only check if a submission has been made or not. If no submission is made, you will be given an opportunity within the same week to make this submission, no further feedback will be given.

You are required to include your signed team cover sheet and declaration in this zip file.

Submission Instructions: On Blackboard, there will be a single submission link for this interim; submit a single zip containing your work and a single pdf of your coversheet as a single submission to this link.

Interim Project Submission V2 – Week 7

Due date: *Friday, April 11, 15:00 AEST*

This project submission is expected to demonstrate progress of your team project and should include a zip file of your project codebase, your signed team cover sheet and declaration, evidence of progress from your week 5 interim submission, start of draft team documentation, start of ideas for team explainer video. This will be graded on a *has/has not* check list:

- Signed team cover sheet and declaration *Y/N*

- Progress in codebase from week 5 submission *Y/N*

- Draft documentation commenced *Y/N*

- Initial draft script or ideas for explainer video *Y/N*

Your tutor will give you verbal feedback in Studio following a review of the submission. If no submission is made, you will be given an opportunity within the same week to make this submission.

Submission Instructions: On Blackboard, there will be three submission links for this interim; a TurnItIn link for a combined pdf of your signed coversheet and draft documentation; a submission link for a single zip containing your codebase to date; and a submission link for assorted files of your draft script/ideas/etc for your explainer video. Your team submission for this interim will comprise of submissions to each of these links. Your submission time for the interim will be recorded as the latest submission of these three links.

Interim Project Submission V3 – Week 9

Due date: *Friday, May 2, 15:00 AEST*

This project submission is to gain formative feedback. For this submission, you will be expected to have the following:

- Signed team cover sheet and declaration

- Progress made on your Codebase

- Draft team documentation
- Script for explainer video

These will be reviewed, and you will be given formative feedback on a 3-point scale mapping for each component above. This 3-point scale maps to the approximate grade band ranges below:

- Does not meet expectations Y/N (= grade band X – 2)

- Meets expectations Y/N (= grade band 2 – 4)

- Exceeds expectations Y/N (= grade bands of 4 – 7)

This will be based on expectations of your progress at week 9, but we expect student work to continue to develop between weeks 9 and 12. The emphasis of this submission is purely to give you formative feedback which you can use to improve your work. The approximate grade band range for this stage, does not guarantee a final grade band range that corresponds.

Submission Instructions: On Blackboard, there will be three submission links for this interim; a TurnItIn link for a combined pdf of your signed coversheet and draft documentation; a submission link for a single zip containing your codebase to date; and a submission link for assorted files for your explainer video. Any video content should be submitted as an Echo Video within the submission. Your team submission for this interim will comprise of submissions to each of these links. Your submission time for the interim will be recorded as the latest submission of these three links.

Interim Project Submission V4 – Week 11

Due date: *Friday, May 16, 15:00 AEST*
This project submission is purely a compliance submission. For this submission, you will be expected to have a version of all of the following submitted:

- Signed team cover sheet and declaration;

- Your prototype codebase;

- Your team documentation;

- An explainer video.

You will not get feedback, only an indication of whether each of these components were submitted. If you are for some reason unable to make your week 12 final project submission, or you miss a component of your week 12 submission, your week 11 submission (or part thereof) will be graded instead to allow you the maximum opportunity to pass. Your tutor will go over your submission to ensure that it meets with the compliance criteria, in that it has a version of each of the above. They will give you only compliance related feedback verbally in studio.

Submission Instructions: On Blackboard, there will be three submission links for this interim; a TurnItIn link for a combined pdf of your signed coversheet and draft documentation; a submission link for a single zip containing your codebase to date; and a submission link for assorted files for your explainer video. Any video content should be submitted as an Echo Video within the submission. Your team submission for this interim will comprise of submissions to each of these links. Your submission time for the interim will be recorded as the latest submission of these three links.

Final Codebase, Documentation and Communication – Week 12

Due date: *Friday, May 23, 15:00 AEST*

The teaching team has permission to share some previous projects from 2024 which you should look at, but please keep in mind that assessment and grading criteria have changed based on previous student feedback. Example projects shared with you are only to give you an idea of the expected level of contribution for a higher-grade band.

You are expected to submit a bill of materials that includes three graded components and two ungraded components (your signed team coversheet and declaration and your README file):

- Signed team cover sheet and declaration appended to the front of your team document

- Your prototype codebase

- Your 1-page README included in your code archive

- Your team documentation

- An explainer video

Submission Instructions: On Blackboard, there will be three submission links for this final submission; a TurnItIn link for a combined pdf of your signed coversheet and draft documentation; a submission link for a single zip containing your final codebase and README; and a submission link for your explainer video as an Echo Video. Your team submission will comprise of submissions to each of these links. Your submission time will be recorded as the latest submission of these three links.

Team Codebase and README file

Your team codebase must be submitted as a compressed archive file (zip) including all your code, but not including huge executables or large data files. It must also include a 1-page README file which explains how to compile and run your code, lists the software you have used from other sources (eg. open source, libraries etc.) with links to the sources, lists any data that your code depends on with links to the data sets and optionally a URL (if available) to a live implementation. If your project is a hardware project, then you must include your

embedded code and list of parts, any design (CAD) diagrams and any other relevant materials in the zip file. You must also include your signed team coversheet and declaration as well as a list of all sources that you have used and/or all AI prompts used in creating the code.

Your README should be no more than 1-page README file and describe how to compile, execute and run your submitted codebase. This is not assessed, but is mandatory and may be needed in the event of a remark request.

As part of your participation component, you will also need to take part in an interactive demonstration of your work and be available to answer questions about your work in an EXPO format see the Active Studio Participation Task Sheet and Criteria. All deadlines, page limits and time limits are strict. Any work that exceeds page limits or time constraints will only be graded up to the limit.

Team Documentation

Your team documentation should be a written technical report. There is a strict page limit of **15 A4 pages** (not including coversheet, title page, table of contents, bibliography and appendices – note that if including appendices these will not be considered in grading. Only the body of the document will be graded, please only include items in appendices that refer to in the body of the document).

Your technical report must be well-structured, easy to read, and formatted with a font size of at least 11pt Times New Roman. It must be thoroughly spell-checked and grammar-checked. Use clear headings, subheadings, diagrams, and graphics (with captions) to enhance readability. Note that any content exceeding the specified page limit will not be graded.

Your team documentation should include:

- An introduction that explains what your product prototype is, why the product is *important* and *innovative* and what problem it solves.

- Justification for your prototype implementation choices, what you chose to implement, what you mocked up to illustrate functionality. *Why* you made the decisions you made.

- A justified explanation of the tools and technologies you used and why these were used.

- Position your prototype within a range of competing products and analyse and justify your choices based in sound research.

- Detail the team project management and collaboration processes you used and how you structured your work to achieve your project goals.

- Detail the ethics, security and data privacy considerations relevant to your team project including a matrix of your identified risks, impacts and mitigations what eventuated and a reflection on what you would do in the future to limit these risks.

- Detail your evaluation approach and reflect on what you learned from stakeholders.

- A conclusion that summarises the main points from the technical report with recommendations for future development of your prototype.

- A consistently formatted bibliography of relevant reference material and attribution of all external sources used.

- If you have used ChatGPT, Copilot or equivalent or any other relevant AI tools, you team document must contain an appendix that lists all your prompts in English to show your workflow and to allow staff to evaluate the academic merit of your work.

Team Explainer Video

Your Explainer video should explain:

- What your project is about

- How your product works

- Show your product in action

- Cite external sources used

You should have shown your script in your interim project submission V3 for feedback. Your explainer should be around 5-8 minutes in duration, you will be given leeway for about 1 minute but a video that massively underruns or overruns will face penalties in grading.

This explainer video must be submitted via Blackboard ECHO Video. See Blackboard for details on how to submit video assessments using ECHO360.

Grading Process

Grading and feedback on Interim submissions will be formative, intended to provide students with an understanding of the quality of their work against the criteria, and to inform and support their subsequent work to refine and improve their project based on the feedback. Only the final project submission contributes to the grade.

Please see the Rubric for specific grading criteria. Grade bands are defined as per UQ's grade band descriptors This assessment uses a qualitative grading scheme and if you do not consistently achieve the same grade across categories listed in the rubric, your grade is matched to the nearest grade boundary. There are no numerical values assigned. The qualitative grading scheme maps to UQs numerical grades as detailed in the course profile.

Late Submission

There is 100% late penalty submission for this assessment item, calculated as following:

> **First 1-hour block:** initial 1 hour grace period no penalty.
>
> **Second 1-hour block:** A penalty of 10% of the maximum possible mark allocated for the assessment item will be deducted.
>
> **Third 1-hour block:** An additional penalty of 10% of the maximum possible mark allocated for the assessment item will be deducted. (adding up to a total penalty of 20% of the maximum possible mark) Any submissions received after three hours will not receive any marks unless an extension has been approved.
>
> Each one-hour block is recorded from the time the submission is due.

If students do not make a final project submission - the most recent previous submission (if made) will be marked in lieu of a late submission against the final project grading rubric.

Learning Objectives

ECP Learning objectives that this assessment is linked to are:

LO1: Analyse a brief or specification for an interactive technology, software, or IT application and apply your expertise to selecting appropriate combinations of tools, technologies and techniques to design and create a prototype solution.

LO2: Apply teamworking and project management techniques to collaborating effectively in both the scoping and creation of a substantial prototype that meets the goals of the brief or specification and is delivered on time.

LO3: Apply human computer interaction design methods to design and critically evaluate the usability and features of your team's prototype application.

LO4: Apply effective communication skills to justify the need, design, and capabilities of your team's prototype application to others.

LO5: Research and critique a range of competing applications and analyse their strengths and weaknesses to compare these against your team's solution.

LO6: Critically reflect on the ethical, security and data privacy decisions made in the design and implementation of your team's project and analyse the impact of these decisions on the prototype solution.

LO7: Appraise (reflect) on your own experience of working in a team to create prototype application and propose improvements to the process, and your own approach, that you could apply in your future professional practice.

ACS Core Body of Knowledge areas

ACS Core Body of Knowledge areas developed in this assessment item are:

- ICT Graduate attributes
- Essential ICT core knowledge
- General ICT knowledge

Note that Studio 3 uses a qualitative marking scheme like other DECO courses, this is to facilitate learning through critique and reflection and allow for more capable students to demonstrate the learning and initiative required to achieve the higher-grade bands. The accompanying rubric is not a set of instructions to achieve grades and must be taken in conjunction with task sheets and course learning objectives.

Third-party Sources

The use of the following is permitted on this course only with full disclosure of how it was used and with proper attribution, you must make clear what is your teams and/or your own work:

- Open source code and libraries (excluding previous DECO projects)
- Open data sets
- Royalty free, free to use icons, images
- Use of generative AI code generation tools such as Copilot and others but only with attribution and a complete list of prompts used in English
- Use of generative AI tools such as ChatGPT to assist with essay writing but only with a complete list of the prompts used in English
- Use of AI grammar checkers where these do not synthesise text, if you are using a grammar checker or a language translation tool, you must declare it.

Criteria	Team Technical Report	Product Prototype Codebase	Explainer Video
LO	*1, 2, 3, 4, 5, 6, 7*	*1, 3, 6*	*4, 5*
High Distinction	There is no doubt about the intended goals of the project. The team technical report is **exceptional**, well structured, **excellent** use of visuals, is a pleasure to read. The team demonstrates a **comprehensive** and **exceptional** in-depth critical analysis and an ability to synthesise information from different sources to explain the tools and technologies used in development of the prototype as well as **exceptional** research skills in appraising the range of competing products. The team gives an **exceptional** account of team collaboration and processes, shows an **excellent** grasp of ethics, security and data privacy issues and implications in their design, conducts an **exceptional** evaluation of their work and shows **exceptional** evidence of critically evaluating the problem, their solutions and implications.	There is no doubt the team prototyped and implemented an **exceptional** partially functioning and **innovative** prototype product. The team demonstrated an **exceptional** ability to solve previously unseen open-ended problems. The prototype has an **exceptional** level of usability, is **easy** to run and test and **fully meets the intent of the brief**. The codebase has **excellent** instructions for novice users to get started quickly. It is an **outstanding** prototype product. The team's codebase is **exceptionally** well architected, demonstrates **excellent** software/IT development practice and quality, naming conventions are **excellent** and **consistent**, the codebase is **well** documented, sources of code and data are **clearly** cited. Ethics, security and privacy of the solution are **exceptional**. It's **clear** what this team has done. **Excellent** attribution of external sources used.	The explainer video is **exceptional** in communicating the team's project to others. The teams messaging is **exceptional**, they keep to the point and to time. They impress with their communication, creativity and initiative and demonstrate the need for their product **incredibly well**. Excellent attribution of external sources **used**.
Distinction	No doubt about the intended goals of the project. Team technical report is **advanced**, well-structured with **excellent** use of visuals. Team demonstrates **advanced** critical analysis and ability to synthesise information from different sources to explain technologies used in development of the prototype and **advanced** research skills in appraising competing products. **Advanced** account of team collaboration, shows **advanced** grasp of ethics, security and data privacy issues and implications in their design, conducts **advanced** evaluation of their work and shows **advanced** evidence of critically evaluating the problem, their solutions and implications.	There is no doubt the team prototyped and implemented an **advanced** partially functioning and **innovative** prototype product. The team demonstrated an **advanced** ability to solve previously unseen open-ended problems. The prototype has an **advanced** level of usability, is **relatively simple** to run and test. The codebase has **good** instructions for novice users to get started quickly. The team has built a very **good** prototype product, that is usable and easy to run and test. There is some evidence of initiative. The team's codebase is very **good**, demonstrates **advanced** practice and quality, **well** documented and very readable. **Advanced** level of ethics, security and privacy. External sources very **well** acknowledged.	The explainer video is **advanced** in communicating the team's project to others. The teams messaging is of an **advanced** level, they keep to the point and to time. The video is **very good**, the team motivate the need for their product **very well**. External sources are **properly** acknowledged.
Credit	The team technical report is **proficient** but lacks a thorough enough justification for choices made. The team demonstrate **good** level of research and awareness of ethics security and privacy implications of their design with a **good** level of evaluation. The evidence for team collaboration is **good**.	The team's prototype demonstrates a **proficient** level of implementation and intended functionality, the usability is **proficient**, and testing and running is easy. The prototype is **proficient** but does **not** demonstrate much innovation. The team's codebase is **good**, demonstrates **good** adherence to standards and quality, quite readable. **Proficient** ethics, security, and privacy. External sources **clearly** acknowledged.	The explainer video is **proficient** in communicating the team's project to others. The video is **good**, keeps to time. The team makes **clear** the need for their product and **all** external sources are acknowledged.

Criteria	Team Technical Report	Product Prototype Codebase	Explainer Video
LO	*1, 2, 3, 4, 5, 6, 7*	*1, 3, 6*	*4, 5*
Pass	The team technical report demonstrates a **sound** knowledge of the relevant information and a **functional** understanding with **routine** arguments or decisions. Only **acceptable** justification which lacks a thorough enough argument for choices made. The team conducts a **basic** level of research with **some** awareness of ethics security and privacy. There is **some** evaluation and critical reflection. The evidence for team collaboration is **functional**.	The team's prototype demonstrates a **functional** level of implementation and intended functionality, the usability is **functional**, and testing and running is awkward. The product prototype is **functional** demonstrating **minimal** innovation. The team's codebase is **functional**, with a **basic** level of **good** adherence to standards, quality and readability. Some **functional** evidence of ethics, security and privacy in the code. External sources **acknowledged**.	The explainer video demonstrates a **functional** level of communication and messaging to others about the product. Video is **basic** and/or overruns/underruns. The need for the product is **functional**. **All** external sources acknowledged.
Marginal Fail	The team technical report demonstrates **developing** knowledge of the relevant information with **some developing** understanding and **routine** arguments or decisions. The research in the report is **basic** and lacks a thorough justification for choices made. The team demonstrate **developing** awareness of ethics security and privacy. The evaluation is **basic**. The evidence for team collaboration is there but needs **developing**.	The team's prototype demonstrates a **developing** level of implementation and intended functionality, the usability is **basic**, and testing and running is **difficult**. The prototype is of a **developing** level demonstrating **negligible** innovation. The team's codebase is **developing**, with **some** adherence to standards, quality and readability. Some **basic** evidence of ethics, security and privacy in the code. **Some** external sources acknowledged.	The explainer video demonstrates a **developing** level of communication and messaging to others about the product. Video is **confusing**, **poor** and/or overruns/underruns. The need for their product is **developing**. **Some** external sources acknowledged.
Fail	The team technical report demonstrates a **minimal** or **absence** of the relevant information and understanding with an **absence** or **minimal** critique of the arguments or decisions made. The team's research is **minimal** or **absent**. There is **little** evidence of awareness of ethics security and privacy or evaluation. **Difficult** or **impossible** to read or understand. The team shows **no** or **minimal** evidence of collaboration on the project. **No** original contribution.	The team's prototype demonstrates **minimal** level of implementation and intended functionality, the usability is **poor**, and testing and running is either **difficult** or **impossible**. The prototype is of a **minimal** or **absent** level demonstrating **no** innovation. The team's codebase is **minimal**, with **no** adherence to standards, quality and readability. **No** or **minimal** evidence of ethics, security and privacy in the code. **No** original contribution. **No** or **minimal** evidence of external sources acknowledged.	The explainer video demonstrates a **minimal** level of communication and messaging to others about the product. Video is very **confusing**, **poor** and/or overruns/underruns. The need for the product is very **unclear**. **Minimal** evidence of external sources acknowledged. **No** original contribution.

All criteria are equally weighted.