

Milestone - Working Application

Studio Project

Milestone - Working application




Course Code: COSC3106

Weighting: 20% of your final mark for this Course

Length: See Requirements Document

Task Type: Group of 2 students. Must not do each other's tasks; each student must complete tasks relating to their sub-task only and will be marked as such. Refer to section 3.3 of this page. Acceptability of group work depends on the group following the stated requirements.

Due date and time: Check this page or Canvas->Assignments for due dates that apply to you. A 10% late penalty applies for each 24 hour block late. After 5 days late, your submission might not be accepted. If special consideration is needed, you must apply via Canvas->'Assignment Extensions' as soon as possible. If granted, special consideration affects only the group member who applied and they must meet the university's [special consideration eligibility criteria](#) or have an [ELP](#).

Feedback: At least four forms of feedback exist: (A) Students are expected to bring copies of their drafts to scheduled studio classes to obtain multiple on-going direction from staff during class times. (B) Additionally, attend/watch consultation sessions (announced later). (C) Students must seek written clarifications via the course Ms Team->[Working Application Clarifications channel](#) . (D) Final feedback will be provided via Canvas approximately 2 weeks after the close of submissions.

Click or tap on the relevant sections to learn more

▼ 1. Course Learning Outcomes Assessed

This assessment supports the following learning outcomes:

- CL0 1: Apply foundational programming skills to design and develop small-to-medium-scale software programs using the Python programming language;
 - CL0 2: Apply core principles of user-centred design to analyse and design user interfaces with good usability that consider human needs, capabilities, usability and user experience goals.
 - CL0 4: Apply SQL as a programming language, directly and embedded in Python programs, to define database schemas, update database contents and to extract data from databases for specific users' information needs;
 - CL0 5: Demonstrate effective team participation, peer feedback, management and communication through relevant industry tools and practices, such as version control system;
 - CL0 6: Demonstrate adherence to appropriate standards and professional practice.
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▼ 2. Overview of Assessment

The studio project involves developing a **data-driven website** to address a social challenge.

In this Milestone you will:

1. Review the website specification document for the data-driven website to understand UCD and technical requirements the website needs to support.
 2. Review the supplied data required to be used for your application.
 3. Create an ERD and database schema for your application.
 4. Build your web application using HTML, CSS and Python.
 5. Build your database and copy data from the csv data files into your database.
 6. Link your web application to your database so users can complete the required tasks.
 7. Demonstrate best practice group-based work with regular meetings, documentation, discussions & collaboration.
 8. Submit a working application that is designed and built for a set of specific user groups.
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▼ 3. Assessment Task

For this assessment you will need to submit:

- Your team's web application by ensuring you have committed and pushed all your changes to your team's git repository before the due date.
- A brief report submitted to Canvas before the due date.

Getting Started

1. Review the requirements document for details on the levels and sub tasks that need to be completed.
[sub-task-requirements.pdf](#) ↓
2. Write a report on your implementation of UCD: Neilsen Heuristics, and Design Patterns.
[milestone-working-app-report.docx](#) ↓
3. Start on this assessment as soon as it is released by creating your Git repository and making initial commits from each student.
4. Review your wire frame designs and use them as the basis for developing the pages in your web application.

5. Progressively develop your web application on a regular basis by regularly committing and pushing changes to your repository.
6. Complete the web pages for your level 1 & 2 tasks utilising HTML, CSS, Python and SQL
These must be fully functional and connected to your database (hard coded data for Levels 1 & 2 is not sufficient.)
7. Complete a draft of your level 3 tasks utilising HTML, CSS, Python and SQL
Your level 3 pages can be a hard coded example but does not have to be live data from your database for this submission.
You will be required to make this live database data for your final submission.

Tips for success:

1. Building your HTML & CSS templates for all your pages.
2. Add hard coded data examples to your templates to ensure your template is sufficient.
3. Start designing and building your database (initially just create 2-3 records in each of your tables so you can start using and testing your application.
4. Incorporate your HTML, CSS & Python code so your web application is being dynamically built by your Python code.
5. Link your pages to your database so you can replace the hard coded data with live data from your database.
6. Whilst working on steps 1 - 4 continually add more of your data to your database so your database has all the data from the supplied datasets.
7. Your completed application should respond to your user's queries and dynamically provide the data they requested. There should be no hard coded data in this submission except for your level 3 pages.

▼ 4. Timeline

Note: You should have a team assessment plan.

Plan for the last commit and submission to be made well ahead of the deadline time.

After final submission has been made each team member should download the Canvas submission and test the latest version of your application.

Allow enough time so that if any issues are found there is time to fix them.

To help you prepare for the assessment, please consider the following activities:

Timeline	Activities
23rd May	<ul style="list-style-type: none">• Create static HTML files and CSS to use as templates for each of your pages; For now, you can hard-code the data that the pages need to show. The final hour of the 23/May Programming Class 5 is allocated for you to seek assistance on this from the in-class staff.• Start on the Working Application Report

Timeline	Activities
26th May - 1st June	<ul style="list-style-type: none"> Review your requirements document and your wire-frames. Incorporate the static HTML templates and CSS to the web-app framework and test your navigation system (Refer to 23/May Programming Class 5 materials) Complete your level 1 page to retrieve data from the DB using SQL (Refer to Programming Class 1-2, 6 materials and SQL1+SQL2 DB Class materials) Draft your level 2 page (with hard-coded data for now). Review and develop the Working Application Report Both students should follow the instructions in section 5 of this assignment page and make a draft submission of code and report.
2nd - 8th June	<ul style="list-style-type: none"> Review your personas tasks and data requirements Complete your level 2 page to retrieve data from the DB using SQL Draft your level 3 page. Review and provide feedback to your project partner on their pages. Finalise the Working Application Report Both students should do a draft submission of code and report
Before Deadline	<ul style="list-style-type: none"> Review your personas tasks and data requirements to fine tune your implementation Check and test your application for any last minute issues. Final submission of code and report

▼ 5. Assessment submission and feedback

You must follow all of the steps below for correct submission.

Preparation of Files:

1. Download your repo as a zip by going to:

https://github.com/s1234567/s1234567_s7654321/archive/refs/heads/main.zip and rename it as **s1234567_s7654321.zip**

- In the above replace s1234567 and s7654321 based on your team.
- You must also ensure that your Friday class lead instructor (e.g. Vanessa/Gayan/Rodney/Ronny) as well as the marker from the group allocation spreadsheet are added as collaborators to your GitHub repository as well as 'OWNERS' to your student Ms Team.
- If your GitHub repository doesn't have all of the files necessary for your working application to work (e.g. if it doesn't have the .db file) or if it has files that are not required for the working application (e.g. CSVs, CSV->DB loading scripts, etc.) you must instead manually prepare the zip file with all required files. Your tutors will be able to assist you with this during the 13/June classes, if necessary.

2. Convert the Working Application Report in your Teams' files section into a PDF and name it **s1234567_s7654321.pdf**

Submission of Files:

1. **Canvas Submission:** Attach and upload the **s1234567_s7654321.zip** and **s1234567_s7654321.pdf** files (see previous step), without zipping further, via this page. You must submit both files in one go (rather than submitting them one after another).
2. **Teams Submission:** In your student group's Ms Team's 'files' tab, create a folder named 'Working Application Teams Submission' and upload the s1234567_s7654321.zip and s1234567_s7654321.pdf files (without zipping further).

Important: It is the responsibility of both students to ensure that the above steps have been followed correctly.

▼ 6. Assessment Criteria

See attached rubric below.

▼ 7. Academic Integrity

Study Support Hub: Academic skills advisors and librarians will help you with researching your topic, finding information, improving your academic writing skills, academic integrity, effective learning strategies, statistics, and more!

Academic Integrity/plagiarism: You can achieve academic integrity by honestly submitting work that is your own. Presenting work that fails to acknowledge other people's work within yours can compromise academic integrity.

Special consideration: If unexpected circumstances beyond your control have affected your ability to complete an assessment, you may be eligible to apply for special consideration.

For more information, please consult the course guide or contact your course coordinator.

Criteria	Ratings						Pts
<p>UCD</p> <p>1. You have meet the requirements of at least one of your user groups.</p> <p>2. You have meet the requirements of at least 3 user groups/personas.</p> <p>3. You have demonstrated an understanding of a broad range (4-5) of the Nielsen Heuristics.</p> <p>4. You have demonstrated a good understanding of a range of design patterns (Navigation, Page Layout, & Navigation). You have demonstrated at least two visual elements and/or features for each design pattern that you have implemented.</p>	<p>5 Pts High Distinction</p> <p>You have met all 4 sub-criterion with no significant improvements identified.</p>	<p>4 Pts Distinction</p> <p>You have met 3 of the listed sub-criterion with no significant improvements identified. OR You have attempted all 4 of the listed sub-criterion but areas of improvement have been identified.</p>	<p>3.5 Pts Credit</p> <p>You have met 2 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 4 of the listed sub-criterion but areas of improvement have been identified for at least 2 of the sub-criterion.</p>	<p>2.5 Pts Pass</p> <p>You have met 1 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 4 of the listed sub-criterion but areas of improvement have been identified for at least 3 of the sub-criterion</p>	<p>1 Pts Partial Marks</p> <p>You have partially met 1 - 4 of the listed sub-criterion with significant improvements identified.</p>	<p>0 Pts No marks</p> <p>There was no submission or the submission was not substantial enough to meet any of the sub-criterion.</p>	5 pts
<p>Python</p> <p>1. The implementation enables the functionality for Level 1.</p> <p>2. The implementation</p>	<p>5 Pts High Distinction</p> <p>You have met all 5 sub-criterion with no significant improvements identified.</p>	<p>4 Pts Distinction</p> <p>You have met 4 of the listed sub-criterion with no significant improvements identified. OR You have attempted all</p>	<p>3.5 Pts Credit</p> <p>You have met 3 of the listed sub-criterion with no significant improvements identified. OR You have attempted up</p>	<p>2.5 Pts Pass</p> <p>You have met 2 of the listed sub-criterion with no significant improvements identified. OR You have attempted up</p>	<p>1 Pts Partial Marks</p> <p>You have met 1 of the listed sub-criterion with no significant improvements identified. OR You have attempted up</p>	<p>0 Pts No marks</p> <p>There was no submission or the submission was not substantial enough to meet any</p>	5 pts

Criteria	Ratings						Pts
<p>enables the functionality for Level 2.</p> <p>3. The implementation demonstrates the intended functionality for Level 3.</p> <p>4. The program code does not contain runtime errors that prevent the application from responding correctly.</p> <p>5. The program code does not contain logical errors that produce an invalid response such as incorrect data being returned.</p>		5 of the listed sub-criterion but areas of improvement have been identified.	to 5 of the listed sub-criterion but areas of improvement have been identified for at least 2 of the sub-criterion.	to 5 of the listed sub-criterion but areas of improvement have been identified for at least 3 of the sub-criterion	to 5 of the listed sub-criterion but areas of improvement have been identified for at least 4 of the sub-criterion	of the sub-criterion.	
<p>Database</p> <p>1. You have provided a complete ER diagram that uses the correct notation.</p> <p>2. You have provided a complete ER diagram that accurately reflects the data requirements.</p> <p>3. The relational schema accurately represents the ER Model.</p>	<p>2.5 Pts High Distinction</p> <p>You have met all 4 sub-criterion with no significant improvements identified.</p>	<p>2 Pts Distinction</p> <p>You have met 3 of the listed sub-criterion with no significant improvements identified. OR You have attempted all 4 of the listed sub-criterion but areas of improvement have been identified.</p>	<p>1.75 Pts Credit</p> <p>You have met 2 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 4 of the listed sub-criterion but areas of improvement have been identified for at least 2 of</p>	<p>1.25 Pts Pass</p> <p>You have met 1 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 4 of the listed sub-criterion but areas of improvement have been identified for at least 3 of</p>	<p>1 Pts Partial Marks</p> <p>You have PARTIALLY met 1 of the listed sub-criterion with several significant improvements identified.</p>	<p>0 Pts No marks</p> <p>There was no submission or the submission was not substantial enough to meet any of the sub-criterion.</p>	2.5 pts

Criteria	Ratings						Pts
4. The database implementation is an accurate reflection of the relational schema and contains all the data from the supplied datasets.			the sub-criterion.	the sub-criterion			
<p>Database Implementation & SQL</p> <p>1. SQL queries demonstrate retrieving raw data from a table and displaying it to the user.</p> <p>2. SQL queries demonstrate filtering data based on user input.</p> <p>3. SQL queries demonstrate sorting data based on user input.</p> <p>4. SQL queries demonstrate summarising data through the use of aggregation.</p> <p>5. SQL queries demonstrate joining multiple tables together to retrieve a required dataset.</p>	<p>2.5 Pts High Distinction</p> <p>You have met all 5 sub-criterion with no significant improvements identified.</p>	<p>2 Pts Distinction</p> <p>You have met 4 of the listed sub-criterion with no significant improvements identified. OR You have attempted all 5 of the listed sub-criterion but areas of improvement have been identified.</p>	<p>1.75 Pts Credit</p> <p>You have met 3 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 5 of the listed sub-criterion but areas of improvement have been identified for at least 2 of the sub-criterion.</p>	<p>1.25 Pts Pass</p> <p>You have met 2 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 5 of the listed sub-criterion but areas of improvement have been identified for at least 3 of the sub-criterion</p>	<p>1 Pts Partial Marks</p> <p>You have met 1 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 5 of the listed sub-criterion but areas of improvement have been identified for at least 4 of the sub-criterion</p>	<p>0 Pts No marks</p> <p>There was no submission or the submission was not substantial enough to meet any of the sub-criterion.</p>	2.5 pts
<p>Teamwork</p> <p>1. Weekly team meeting recordings</p>	<p>5 Pts High Distinction</p>	<p>2 Pts Distinction</p>	<p>1.75 Pts Credit</p>	<p>1.25 Pts Pass</p>	<p>1 Pts Partial Marks</p>	<p>0 Pts No marks</p>	5 pts

Criteria	Ratings						Pts
<p>(from week 12 onward)</p> <p>2. Weekly team meeting minutes (from week 12 onward)</p> <p>3. A detailed project plan that outlines key steps, timelines, and team member responsibilities for task.</p> <p>4. Evidence has been provided that demonstrates the student took the initiative to seek and provide feedback/assistance to their project partner.</p> <p>5. A group participation document for this submission which shows a table listing each group member and the percentage of work that they contributed to the overall submission (these must add up to 100%) Each group member must sign this document (e.g. a screenshot of acknowledgement in an online discussion tool)</p>	<p>You have met all 5 sub-criterion with no significant improvements identified.</p>	<p>You have met 4 of the listed sub-criterion with no significant improvements identified. OR You have attempted all 5 of the listed sub-criterion but areas of improvement have been identified.</p>	<p>You have met 3 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 5 of the listed sub-criterion but areas of improvement have been identified for at least 2 of the sub-criterion.</p>	<p>You have met 2 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 5 of the listed sub-criterion but areas of improvement have been identified for at least 3 of the sub-criterion</p>	<p>You have met 1 of the listed sub-criterion with no significant improvements identified. OR You have attempted up to 5 of the listed sub-criterion but areas of improvement have been identified for at least 4 of the sub-criterion</p>	<p>There was no submission or the submission was not substantial enough to meet any of the sub-criterion.</p>	

