

3rd Year Group Project – Stage 3 (“Final Product”)

This document describes Stage 3 of the 3rd Year Group Project and should be read in conjunction with the Group Project Guide, the Project Specification, and the Group Project information posted on Vision. Stage 3 will count for 45% of the Group Project mark.

Overview

In the final stage, the group is expected to complete the product and produce a final report documenting and evaluating the project. The final applications will also be demonstrated near the end of the process. Additionally, groups containing an IS student should produce a short marketing analysis and strategy for the product.

Documents and Outputs

For Stage 3, you should produce the following outputs and reports as described below.

1. Marketing Analysis and Strategy (Groups with IS students)

Produce a short marketing strategy for your application. The details of this strategy are up to your group and should be highlighted during the final demonstration (see below). You should think about the market for your product, and support your strategy with any relevant data you can find (e.g., analysis of market size, product advantage over competitors, product placement, etc.).

2. Develop the Remainder of the Application

Develop the remainder of the application. You should have produced an application worth one course worth of effort, which is user-friendly and reasonably robust. It would be better to have a few features left unimplemented rather than have produced a full set of features which all contain significant flaws. Marks for this section will be determined both from the documentation and the demonstration (see below).

3. Final Usability Evaluation

Perform a final usability evaluation of your product, similar to the one you conducted in Stage 1 but using the full system. Again try to get at least 6-8 participants for this study and think of tasks that make use of the full set of features you have implemented. Try to collect both subjective data (e.g., what the user thinks/says) and objective measures (e.g., number of successful tasks, time to completion). This evaluation is separate from the final demonstration, where you will be showing off the product, not collecting data.

IMPORTANT NOTE: Due to the ongoing COVID-19 situation, all usability studies must be performed online and not involve any face-to-face contact. There must be no physical co-location of the team members leading the evaluation and the participants. The team may wish to consider approaches like online questionnaires to gather information from participants. Since the COVID-19 situation may change rapidly, more details on the final usability study will be provided during Stage 3 in Semester 2.

4. Final Application Design and Implementation

Update your Stage 2 progress report for the final version of your system. It should contain:

- Overview of the system, including a high-level overview of technologies and components.
- Detailed design of the final system. Include, if relevant, supporting dataflow diagrams, UML diagrams, class diagrams, etc.
- Final Interface design describing the layout and navigation of the application(s).
- Describe your implementation methodology. Did you use iterations, Scrum or other agile techniques? Provide details of what was achieved in each iteration/sprint.
- Summarise how you tested the final system for technical correctness.
- Documentation on how to install/setup/maintain the final system and a short user guide.

5. Project Evaluation

Assess the project as a whole, including recommendations for the future. Include the following subheadings and address (at least) the topics below:

Organisation

- How was your group organised? Was it successful?
- How well did your group collaborate? How did you handle any problems which arose?
- How successful were the timings in your original plan?

Implementation

- What was your implementation schedule and how did this differ from the original plan?
- Was your implementation approach successful (e.g., Scrum, other agile, etc.)? Why or why not? Use specific examples from your experiences to support your discussion.
- Which languages, tools, and techniques did you use? How suitable were they?

Product

This section should give a report on the functionality you have achieved. Provide an outline summary and then go into details. For example:

- How many of your requirements did you meet? E.g., you could also provide a table showing to what extent each of your numbered functional requirements have been completed.
- What is particularly special about your product? Have you included extra features?
- How robust is your final system? Are there known bugs or constraints?
- How usable did your subjects find the final system? Include a brief summary of your results.

Appendix of Supporting Documentation

You should also include any other supporting documentation you think is relevant. This could include project diaries/report, original implementation plan, marketing material, etc.

6. Professional Conduct

Your Manager will also assign your group a grade based on how well the group conducted itself during meetings, when interacting with staff, in correspondence, etc. The Manager will be looking to see that group members acted respectably to their peers and staff, met deadlines, attended meetings and were punctual, acted on feedback, and generally conducted themselves in a professional manner.

7. Final Product Demonstration

Near the end of the process you will demonstrate your product to your Manager and the Project Coordinator or another Manager. This is a chance to show off your product and demonstrate the features you have implemented. The demonstration should be no more than 15 minutes long (and can be shorter) and could be similar to the demo you gave during Stage 2. Your demo should capture key aspects of the product including:

- A brief introduction: who you are and what you did on the project.
- The company information and overview of the product
- High-level system architecture, so that we can see what the system components are and the software you are using.
- Main demonstration focusing on key features of the application. Don't labour over things like logging in and lots of data entry. Make sure you describe what works and what doesn't work with respect to your product and project plan.
- Any additional marketing materials (e.g., flyers, posters, etc.) and your marketing plan (groups with IS students).
- Other useful information you think might be helpful for understanding your product or your approach.

Assessment of the demo is based on the quality of the demonstration and your software so you should practise your demo in advance. Each person should take part in the demonstration. Members of the group should run through the program using a prepared plan of events, aimed to demonstrate the key features. There could be a little audience participation, where the markers ask for certain features to be demonstrated. The markers may try the software directly, if this is possible. You may also want to design an overview document or a poster to distribute, showing your requirements and what has been achieved, and system architecture.

It's important to have a plan for the demo. Prepare the examples. Ensure that you focus on the most interesting parts. Rehearse your demo, and time yourself. At the end, there may be questions. Be prepared to show the source code and explain how various functionalities are implemented.

Finally, be professional!

IMPORTANT NOTE: In past years, we have run an Expo event where each team sets up a booth to demonstrate their final products to their Managers, the Project Coordinator, invited industry guests, and other students. Given the ongoing COVID-19 situation, it is uncertain whether the Expo event will go forward this year. A decision will be made closer to the planned Expo date. In the event the Expo doesn't go forward, teams will provide an online demonstration of their product to their Manager and the Project Coordinator or another Manager. Again, final details will be provided closer to the end of Stage 3.

Additional notes

When writing the final report, ensure you follow the style you established in Stages 1 and 2. Use a same title page to include the document subject, your group name, Manager name, and names of students in the group. Include a table of contents if appropriate. Include a URL to your company website in your report. Remind yourselves of what you learned in previous courses and make sure you get the terminology right. Remember to aim for a single, integrated report rather than a collection of reports that have been bundled together.

Deadlines and submission

Submit your completed Stage 3 report on Vision in the **Group Project** section for F29SO. Check Vision and the Group Project Guide for the deadline for Stage 3, keeping in mind the submission time is campus dependant. The Expo may be scheduled at a different day/time from the Stage 3 reporting deadline.

Assessment

Software Engineering (F29SO) and Professional Development (F29PD) are both evaluated by coursework only (i.e., no exam). Your mark in F29SO and F29PD will be calculated as a weighted combination of your F29SO individual coursework (17%), your F29PD coursework in Semester 2 (17%), and your individual Group Project mark (66%). F29SO and F29PD will both receive the same calculated mark.

This coursework contributes to the Group Project mark and will make up 45% of the group's overall mark (before individual adjustments). Stage 3 will be marked by both the Project Coordinator (with the exception of the Professional Conduct and Final Product Demonstration) and your Manager. The Final Product Demonstration may be marked by the Project Coordinator or a Manager from another group. A peer assessment by other groups may also be used. Stage 3 will be marked out of **240 marks** using the following mark distribution and assessment criteria.

Criteria	Poor	Adequate	Excellent
Marketing Analysis and Strategy (out of 20 marks)	0 to 7 marks Minimum or no marketing strategy or analysis. No understanding of the beneficiaries and stakeholders. Marketing strategy not original and not tuned to the product. No USP defined.	8 to 13 marks Some marketing strategy and analysis but further detail needed. Some understanding of the beneficiaries and stakeholders but marketing strategy not well targeted. USP unclear.	14 to 20 marks In-depth marketing strategy and analysis with well referenced statistics and market size. In-depth understanding of the beneficiaries and stakeholders. Much effort, enthusiasm and ingenuity with regards the marketing strategy which is targeted. Well defined USP.
Develop the Remainder of the Application (out of 100 marks)	0 to 49 marks Group has produced an application not worthy of a course worth of effort. The system is not robust with serious usability issues remaining and not interactive. Very limited data used from only one source.	50 to 69 marks Group has produced an application not quite worthy of a course worth of effort. The system is reasonably robust but with perhaps some usability issues remaining or not very interactive. Most components have been covered per the spec but with limited functionality. Limited data used and perhaps only from one source.	70 to 100 marks Group has produced an application worthy of one course worth of effort. The system is robust with high usability and interactivity. All of the major components have been developed per the spec and perhaps some additional features. Several users have been accounted for.
Final Usability Evaluation (out of 20 marks)	0 to 7 marks A study evaluating final product usability but with some aspect which is either unethical or the mock-ups have not been given adequate thought. Experimental protocol is flawed in some way or did not include the use of a consent form.	8 to 13 marks A reasonable study evaluating final product usability but perhaps not completely thought through with respect to design. At least 6-7 subjects recruited with a good experimental protocol followed including the use of a consent form.	14 to 20 marks A well run, ethical study evaluating well thought-through interface mock-ups. At least 6-7 subjects recruited with a sound experimental protocol followed including the use of a valid consent form. Questionnaires are either a standard or include

	<p>Questionnaires may contain questions that are leading, ambiguous or unethical. Limited discussion of findings and recommendations given. No use of descriptive statistical measures. Data not anonymised.</p>	<p>Questionnaires may include questions that are leading or ambiguous. Some findings and recommendations given. Limited use of descriptive statistical measures.</p>	<p>questions that are well thought through and without leading or ambiguous questions. A table of findings and recommendations is given, along with a discussion on which ones to take forward. Some descriptive statistics used to describe the subjects demographics and subjective data.</p>
<p>Final Application Design and Implementation (out of 20 marks)</p>	<p>0 to 7 marks Poor high-level overview of the system. Very limited description of the design of the final system with many details missing. Overview of the final interface design but with some serious usability issues. Inadequate or no test plan.</p>	<p>8 to 13 marks Reasonable high-level overview of the system including the various system components. Design of the final system but with some details missing. Overview of the final interface design but with some usability issues. Adequate thorough test plan.</p>	<p>14 to 20 marks Clear high-level overview of the system including the various system components. Detailed design of the final system including, e.g., UML diagrams, class diagrams etc. Overview of the final interface design including layout and view connections having high usability. Overview of development processes adopted, e.g., iterations/SCRUM. Excellent thorough test plan.</p>
<p>Project Evaluation (out of 20 marks)</p>	<p>0 to 7 marks Marks are given for how well the group ran the project but also marks are given for reflection as written in the project evaluation section. (1) Group did not organise itself well with little collaboration and problem solving. (2) Poor use of project management tools and techniques resulting in many project management issues. (3) Most of initial user requirements remain unfulfilled. If requirements are not fulfilled the reasons given are not adequate and reflect poor group performance. Poor or few supporting documents.</p>	<p>8 to 13 marks Marks are given for how well the group ran the project but also marks are given for reflection as written in the project evaluation section. (1) Group organised itself reasonably well with some collaboration and problem solving. (2) Good use of project management tools and techniques but having some project management issues. (3) Medium level of functionality achieved. Most of initial user requirements fulfilled. If requirements are not fulfilled the reasons given are reasonable. Some supporting documents.</p>	<p>14 to 20 marks Marks are given for how well the group ran the project but also marks are given for reflection as written in the project evaluation section. (1) Group organised itself very well with good collaboration and problem solving. (2) Excellent use of project management tools and techniques resulting in a well run project. (3) High level of functionality achieved. The majority of initial user requirements fulfilled. If requirements are not fulfilled the reasons given are reasonable. Excellent supporting documents.</p>

Professional Conduct (out of 20 marks)	0 to 7 marks The group did not conduct meetings in a reasonably professional manner. Did not work well together nor act respectfully to their peers and staff. Issues meeting deadlines and collaborating with peers. Nor punctual to meetings. Did not act of feedback.	8 to 13 marks The group conducted meetings in a reasonably professional manner. Worked reasonably well together and acted respectfully some of the time to their peers and staff. Perhaps some issues meeting deadlines and collaborating with peers. Not always punctual to meetings. Acted on some but not all feedback.	14 to 20 marks The group consistently conducted meetings in a professional manner. Worked well together and acted respectfully to their peers and staff. Met deadlines and were punctual to meetings. Responded well to feedback.
Final Product Demonstration (out of 40 marks)	0 to 15 marks Poor demonstration. Demo talk not well prepared or rehearsed, missing essential details about the company and product, or outside the time limit. Product demonstration not well organised or missing content from the Stage 3 description (introduction, architecture, key features, etc.), poor evidence of marketing strategy or additional marketing materials not available, some team members do not take part.	16 to 27 marks Adequate demonstration. Demo talk reasonably well prepared and rehearsed, some details about the company and product possibly missing, or minimally outside the time limit. Product demonstration reasonably well organised, some content from the Stage 3 description possibly missing (introduction, architecture, key features, etc.). Evidence of marketing strategy with marketing materials possibly available. Most/all team members take part.	28 to 40 marks Excellent demonstration. Well prepared and rehearsed demo talk outlining the company and product, presented within the time limit. Product demonstration is very well organised with all content specified in the Stage 3 description (introduction, architecture, key features, etc.). Strong evidence of marketing strategy and additional marketing materials available. All team members take part.

Feedback

Written feedback will be provided to the group approximately three working weeks after the submission/completion of Stage 3. Your Manager may also provide additional verbal feedback to the group.

Learning Objectives, Late Submission of Coursework, Mitigating Circumstances, and Plagiarism

Please refer to the **Group Project Guide** for information about the learning objectives for the Group Project and details on the relevant course/university policies. You are responsible for reading and understanding these policies for completing the project.