

# Making Interactive Computer Games

## P2 Instructions

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You should have completed the two P1s for your theme. The P2 Project (P2) requires you to post two short proposals to Moodle outlining your project, build the project, demonstrate your project at a show and tell session, and write a report describing your project and your experiences.

The time line is:

1. Think about what you want to do for a P2 Project.
2. Post a one paragraph statement of your proposed P2 project  
First theme — end of week 4 (A & B), middle of week 2 (Summer).  
Second theme — end of week 10 (A & B), middle of week 5 (Summer).

This statement is to show that you are underway with your project, and to share your idea for critique. The paragraph should broadly outline the basic idea for your game What your game will be about, what the game goals are, who the game audience is, what kind of objects the game will contain, broadly how the levels will be arranged)

Post your statement to the Games theme discussion in Moodle. Consider and comment on the postings from your classmates as to the suitability/feasibility of their idea. Be prepared to defend your choice. (Remember, art of your assessment is based on your contributions).

3. Post an outline of the design for your project web site  
First theme — middle of week 5 (A & B), end of week 2 (Summer).  
Second theme — middle of week 11 (A & B), end of week 5 (Summer).

The idea of the outline is to show that you are working satisfactorily, and to show your project design. Your outline should include:

- what is the theme of the game
- who is your target audience
- what are the game goals (what must the player achieve to win)
- an outline of the game mechanics (how do the objects interact, what movement is possible, what controls does the user have)
- level structure description (what levels will you have and how will they be linked)
- example level layouts
- any game issues (special features, mechanics, logic, etc)
- an estimate of time required to complete the P2 project and write the report; and a costing for that time.

Note: In regard to the last point, given your project outline, we want you to estimate the time it will take you to source your media, implement the project, and the time it will take to write the report. Then tell us what you think the completed project would cost, i.e. what would you pay if you were asking someone to make it for you, or conversely, what would you charge to make it for someone else?

You should consider the postings from your classmates and comment on any problems you perceive in their designs. Discuss any feedback

4. Spend the remaining weeks of the theme working on your project. Remember to record the time that you spend working on the project.
5. Sign up for and attend a show and tell session  
First theme — during week 7 (A & B), end of week 3 (Summer).  
Second theme — during study week (A & B), end of week 6 (Summer).

The ‘show and tell’ session is to demonstrate and explain your P2 project. Show and tell sessions will be held separately for each theme, and you will need to reserve a space in a session before they start. Check Moodle for the session times and how to sign up for a session.

6. Read the “Guide to writing up your P2 report” in Moodle. Write up a brief report that summarises your experience and idea behind the Part A of the project. Emphasis should be given to your consideration of designs and the idea behind your project and your outcomes. i.e. justify why you came up with the animation in terms of the content and effects you did. The ‘what’ should be there primarily to illustrate the ‘why’. When you write the report, record the time spent writing.

Reflect on the process in your report. How did you find the software to use? How successful was your project? Relate this to some reflection on the material you covered in the P1 modules (what you thought was good and bad, and consider the feedback from the Moodle discussion). What have you learned from the experience? Compare your time estimates from your outline with your actual time spent. Discuss any discrepancies.

7. After your ‘show & tell’ presentation, submit your report and any other files requested by the marker at your presentation into Moodle.
8. The report must be handed in at the end of the show and tell week  
First theme — end of week 7 (A & B), end of week 3 (Summer).  
Second theme — end of study week (A & B), end of week 6 (Summer).

# Making Interactive Computer Games

## Games P2

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This P2 project applies the material you explored in the Game Theme modules. You are to design and create an interactive game, utilising the features and concepts you have learnt. Then you are to prepare a report describing the processes you utilised, and explaining why you designed the game in the way you did. The game is to be created using Game Maker, and the report is to be prepared using Word. You will present and discuss the animation at a Show & Tell session.

### Part A:

This will allow you to demonstrate your understanding of the practical techniques. The goal is to build a reasonably complete game, following one of the styles presented in the P1 modules.

Design your own game, or a variation of an existing game. Don't be too ambitious. It is better to something simple done well than something complicated and poorly done or incomplete.

There are lots of web sites with interesting reviews of old games. You could choose one and see how close you can get to building a copy.

Your project should include:

- a start 'splash' screen with the game name and your name on it.
- a screen which has instructions on how to play the game
- an appropriate ending screen
- the ability to maintain scores and high scores, and display a high score table at the end of the game (if appropriate for chosen game)
- have more than one level (if appropriate for chosen game)
- provide a good level of challenge to the player
- be solvable/winnable.

The content must be your own, public domain, or used by permission. The material you base your work on must be suitable to show your marker on presentation day. Any scripts, code, text, and graphics used in your game other than your own work or clip-art must be used only with permission, and the source must be acknowledged both in the game itself and in your report explaining the game. In particular, the sources of graphics and other non-text media must be acknowledged. Failure to acknowledge 'borrowed' work is considered plagiarism..

Please note that the University does not condone plagiarism and if it is determined you have made unacknowledged use of another persons work action will be taken under the University's discipline regulations (see the University calendar)

See the attached marker's review and criteria pages for guidance on how the P2 project will be marked.

## **Part B:**

Part A has shown that you can create a game — part B is to demonstrate your understanding of the process of game design and creation.

You are to write a report summarizing your design and the process taken to create it. Follow the guidelines in the "Guide to writing up your P2 report" (in Moodle). Emphasis should be given to your consideration of the processes and your outcomes. i.e. justify why you came up with the idea you did. The 'what' should be there primarily to illustrate the 'why'. You should be explaining how you arrived at the design decisions, and why you made the game that way. You should explain the technical aspects of creating the game like using parenting, use of code, etc and why you used them. Screen shots can be included to demonstrate problems or discoveries made during the creation process. Include any draft design sketches, storyboarding, or action lists if you made any, to support your explanation. Reflect on whether you think your game is a good game. i.e. fun and challenging.

The report must include a comparison of the time estimates from your outline with the actual recorded time working on the project and writing the report. Comment on any differences, including reasons why the estimate varied from the time used. Based on this experience, how would you produce a better time estimate for future projects? Compare your finished product with your estimate of its worth from your outline. Do you think that it is worth what you proposed paying/charging? If not, give a new cost for what was actually created. Use this new cost and the number of hours you worked on it to calculate your 'hourly wage' for the project. Comment on whether this is a good wage?

The report should be 1000-2000 words (at least one page, to around four word-processed text pages), plus screenshots, diagrams, and attachments.

## **What to hand in:**

Submission is electronic via Moodle. You are to hand in:

- your report (pdf or word document)
- the marker may require access to your game after the show & tell. How to submit this will be explained at that time.

# Games Theme

## Making Interactive Computer Games P2 mark sheet

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Student Name: \_\_\_\_\_ Session: \_\_\_\_\_

### Game Technique

• Use of objects	Good	•	•	•	•	•	Poor
• Use of levels	Good	•	•	•	•	•	Poor
• Use of parenting	Good	•	•	•	•	•	Poor
• Use of lives / health	Good	•	•	•	•	•	Poor
• Use of added music / sounds	Good	•	•	•	•	•	Poor
• Use of high score table	Good	•	•	•	•	•	Poor
• Use of rules and logic	Good	•	•	•	•	•	Poor
• Many rules used in game	Good	•	•	•	•	•	Poor
• Free of errors or glitches	Good	•	•	•	•	•	Poor

### Game Design

• Game playability	Good	•	•	•	•	•	Poor
• Clear goals and theme	Good	•	•	•	•	•	Poor
• Layout and organization of levels	Good	•	•	•	•	•	Poor
• Logic consistent within game	Good	•	•	•	•	•	Poor
• Music / sound effects supports game	Good	•	•	•	•	•	Poor
• Graphics supports game	Good	•	•	•	•	•	Poor
• Full use of features	Good	•	•	•	•	•	Poor
• Media suitably cited / acknowledged	Good	•	•	•	•	•	Poor

### Comments

### Report Structure

• Length	Short	•	•	•	•	•	Long
• Appropriately structured (intro/body/conclusion)	Good	•	•	•	•	•	Poor
• Argument structure	Good	•	•	•	•	•	Poor
• Diagrams linked to text	Good	•	•	•	•	•	Poor

### Report Content

• Appropriate introduction	Yes	•	•	•	•	•	No
• Defines Objectives	Yes	•	•	•	•	•	No
• Description of game mechanics	Yes	•	•	•	•	•	No
• Description of code mechanics	Yes	•	•	•	•	•	No
• Discusses technical issues	Yes	•	•	•	•	•	No
• Matching of result to objective	Yes	•	•	•	•	•	No
• Reflection	Yes	•	•	•	•	•	No
• Appropriate summary	Yes	•	•	•	•	•	No
• Comprehensiveness	Good	•	•	•	•	•	Poor

### Writing Style / Technical

• Writing style	Good	•	•	•	•	•	Poor
• Text flows	Good	•	•	•	•	•	Poor
• Sentence structure	Good	•	•	•	•	•	Poor
• Grammar	Good	•	•	•	•	•	Poor
• Spelling	Good	•	•	•	•	•	Poor

### Presentation

• layout	Good	•	•	•	•	•	Poor
• readability	Good	•	•	•	•	•	Poor
• order of material	Good	•	•	•	•	•	Poor

### Comments

## Marking Criteria Guide

Markers will also consider the following when assigning grades to the P2

	<b>Design</b>	<b>Technique</b>	<b>Explanation</b>
E	<ul style="list-style-type: none"> <li>game incomplete</li> </ul>	<ul style="list-style-type: none"> <li>no movement</li> <li>failed to use any features</li> </ul>	<ul style="list-style-type: none"> <li>missing or minimally complete</li> <li>includes handwritten material</li> </ul>
D	<ul style="list-style-type: none"> <li>random screen of objects</li> <li>lack of game playability</li> <li>lack of movement</li> </ul>	<ul style="list-style-type: none"> <li>only uses simple rules</li> <li>many errors present</li> <li>minimal use of features</li> </ul>	<ul style="list-style-type: none"> <li>minimal explanation</li> <li>some notes on features used</li> <li>lack of structure</li> </ul>
C	<ul style="list-style-type: none"> <li>okay game playability</li> <li>okay graphics &amp; layout</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>simple rules only</li> <li>game has only one level</li> <li>some errors present</li> <li>some use of features</li> </ul>	<ul style="list-style-type: none"> <li>report format</li> <li>description of features used</li> <li>lacks/ minimal description of design choices</li> </ul>
B	<ul style="list-style-type: none"> <li>good game playability</li> <li>good graphics &amp; layout</li> </ul>	<ul style="list-style-type: none"> <li>game has many rules</li> <li>few errors present</li> <li>competent use of features</li> </ul>	<ul style="list-style-type: none"> <li>report format</li> <li>good description of design choices</li> <li>identifies audience</li> <li>identifies game intention</li> </ul>
A	<ul style="list-style-type: none"> <li>excellent game playability</li> <li>excellent graphics &amp; layout</li> </ul>	<ul style="list-style-type: none"> <li>multiple levels</li> <li>complex rule system</li> <li>no errors</li> <li>full use of features</li> <li>features not covered in P1 used</li> </ul>	<ul style="list-style-type: none"> <li>report format</li> <li>well-constructed argument</li> <li>concise and comprehensive</li> <li>design choices matched to audience and intention</li> </ul>

