

SG450 Game Development Game Development Project

This assignment supports the following outcomes:

Generate all necessary technical documents for a game production project.
Apply the latest methodologies and technologies to deliver documents, diagrams, and pseudo-code in a game production project.
Appreciate the various aspects and challenges associated with working on a game production project.

Assignment Overview

The development of a game is such a complex task that the importance of documenting every step of the process is critical. A well documented Game Development project can potentially save money and time and greatly improve the quality of the final product. In this assignment, you will generate all supporting documents listed in the deliverables below.

Deliverables

Customer Requirements Document – Assigned at beginning of week 1 and due at beginning of week 2 - This document should contain the complete vision of the game.

Game Design Document – Assigned at beginning of week 2 and due beginning of week 4 - This document should contain the engineering vision of the game.

System Design Document – Assigned beginning of week 4 and due end of week 5 - This document should contain the system specification of the game.

Project Plan – Assigned middle of week 5 and due beginning of week 7 - This document should contain the specifications for the development and implementation of the game including timelines. The below components should be part of this plan:

- Risk Analysis Report - This document should contain brief descriptions of all areas in the game design and implementation processes that may cause schedule uncertainty due to limitation of resources or knowledge.
- Contingency Plan - This document should contain information about how issues related to lack of resources and/or knowledge will be handled and solved.

UML use cases – Assigned end of week 5, due beginning of week 6 - This document should contain all UML use case diagrams.

UML diagrams – Assigned beginning of week 6, due beginning of week 8 - This document should contain all UML diagrams, that is, class, sequence, collaboration, state, activity, component, and deployment diagrams

Pseudo code – Assigned beginning of week 8, due end of week 9 - This document contains "plain English" explanation about how the coding of the game should be implemented.

Grading

The following grading rubrics will be used to evaluate your assignment. Your instructor will provide you with these rubrics along with this assignment handout.

Content Grading Rubric	100%
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Resources

The below textbook examples contain information on game development documentations and examples. Additional research may be required to complete this assignment as well.

Game Architecture and Design, New Riders Publishing, 2004 - Textbook

Game Design Perspectives, Edited by Francois Dominic Laramee, Charles River Media, Inc 2002

Ultimate Game Design, Tom Meigs, McGraw-Hill/Osborne, 2003.

Object-oriented Game Development, Julian Gold, Pearson Education Limited 2004.

Andrew Rollings and Ernest Adams on Game Design, Andrew Rollings and Ernest Adams, New Riders Publishing, 2003

Software Requirements Using the Unified Process, Daniel R. Windle and L. Rene Abreo, PRENTICE HALL

Developing Software with UML, Bernd Oestereich, ADDISON-WESLEY, 1999.

Software Requirements Using the Unified Process, Daniel R. Windle and L. Rene Abreo, PRENTICE HALL.

Software Requirements, Karl E. Wiegers, Microsoft Press.

**SG450 Game Development
Game Development Project - Content Rubric**

Student Name: _____ **Date** _____

Project: Game Development Project

Element	5	3-4	1-2	Score
Customer Requirements Document	Document should contain complete game vision. Also document is concise and easy to read.	Document contains a game vision but is not complete enough. Lack of details may impede the process of designing a game.	Document contains general statements. Vision of a game is not clear and understandable.	
Game Design Document	Document is complete. Game vision is clear. Document is simple enough that technical or non-technical people can understand it.	Document is somewhat complete. Lack structure. Hard to read and understand.	Document is vague. It does not contain enough information so nobody can understand the game vision.	
System Design Document	Document is concise and explains all system requirements for the game. Also document contains a lot of details.	Document contains system requirements. However, some requirements are not explain in details giving the reader multiple interpretations.	Document is short and not cover all requirements with details.	

Element	5	3-4	1-2	Score
Project Plan.	Project plan is complete and clearly matches the project scope and the contingency plan. Task matches skills available.	Project plan is complete but it requires some interpretation. Some tasks misses its predecessor.	Project Plan is not complete. Some tasks were not included. Timelines are off.	
Risk Analysis Report	Report addresses all the issues that may endanger the project. It is impartial and it contains realistic assumptions and not any negativity.	Report is somewhat complete and misses some important issues. Lack of details.	Report is vague and it does not contain enough information to be used in a project.	
Contingency Plan	Plan is clear and concise and it offers good alternatives. It supports the project well and likely it won't delay the project.	Plan is likely to be usable. However, it does not contain alternatives and it may delay the project if any deliverables fail.	Plan is barely usable. It may offer some guidance but likely it has to be redone.	
UML user cases	User cases drawings cover of usability of the game. Drawings are simple and easy to understand by technical and non-technical people.	User cases drawings are somewhat convoluted and hard to understand. Only people very involve in the project would understand the drawings.	User cases drawings are hard to follow. Very incomplete. Not usable.	

Element	5	3-4	1-2	Score
Pseudo code	Complete and matches the UML diagrams. Implementation of the Game can be archived by implementing the pseudo code.	Pseudo code somewhat confusing. Implementation will be hard and likely will generated a incomplete game.	Pseudo code is incomplete and cannot be implemented.	

Based on the above scoring grid, determine the student's grade percentage or grade number, then write the **grade number** below:

Grade Number for this paper: _____

Grade Number	Grade Percentage
5 – Excellent	90 – 100%
4 – Proficient	80 – 89%
3 – Adequate	70 – 79%
2 – Needs Improvement	60 – 69%
1 – Insufficient	59% and below

Comments to the Student:

SG450 Game Development Game Development Project - Oral Presentation Rubric

Student Name: _____ **Date** _____

Project: Game Development Project

Element	5	4	3	1-2	Score
Awareness of Audience	<p>Significantly increases audience understanding and knowledge of topic;</p> <p>Effectively convinces an audience to recognize the validity of a point of view.</p>	<p>Raises audience understanding and awareness of most points;</p> <p>Clear point of view, but development or support is inconclusive and incomplete.</p>	<p>Raises audience understanding and knowledge of some points;</p> <p>Point of view may be clear, but lacks development or support.</p>	<p>Fails to increase audience understanding or knowledge of topic.</p> <p>Fails to effectively convince the audience.</p>	
Strength of Material, Organization	<p>Clear purpose and subject;</p> <p>Pertinent examples, facts, and/or statistics;</p> <p>Conclusions/ideas are supported by evidence;</p> <p>Major ideas summarized and audience left with full understanding of presenter's position.</p> <p>Excellent creativity.</p>	<p>Has some success defining purpose and subject;</p> <p>Some examples, facts, and/or statistics support the subject;</p> <p>Includes some data or evidence which supports conclusions or ideas;</p> <p>May need to refine summary or final idea.</p> <p>Shows creativity.</p>	<p>Attempts to define purpose and subject;</p> <p>Weak examples, facts, , which do not adequately support the subject;</p> <p>Includes very thin evidence in support of ideas or conclusions;</p> <p>Major ideas may need to be summarized</p> <p>Minimal creativity</p>	<p>Subject and purpose are not clearly defined;</p> <p>Very weak or no support of subject through use of examples, facts, and/or statistics;</p> <p>Totally insufficient support for ideas or conclusions. Major ideas left unclear, audience left with no new ideas.</p> <p>No creativity</p>	
Delivery	<p>Relaxed, self-confident holds attention by direct eye contact with all parts of audience;</p> <p>Fluctuation in volume and inflection help to maintain audience interest and emphasize key points;</p>	<p>Quick recovery from minor mistakes; Fairly consistent use of direct eye contact with audience;</p> <p>Satisfactory variation of volume and inflection.</p>	<p>Some tension or indifference apparent and possible inappropriate dress for purpose or audience;</p> <p>Occasional but unsustained eye contact with audience;</p>	<p>Nervous tension obvious and/or inappropriately dressed for purpose or audience:</p> <p>No effort to make eye contact with audience;</p> <p>Low volume and/or monotonous tone</p>	

			Uneven volume with little or no inflection.	cause audience to disengage.	
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Based on the above scoring grid, determine the student's grade percentage or grade number, then write the **grade number** below:

Grade Number for this presentation: _____

Grade Number	Grade Percentage
5 – Excellent	90 – 100%
4 – Proficient	80 – 89%
3 – Adequate	70 – 79%
2 – Needs Improvement	60 – 69%
1 – Insufficient	59% and below

Comments to the Student: