

Instructions

This is the assignment for unit IV, Nuts & Bolts, and should be submitted for a grade.

The purpose of this assignment is to give you a chance to learn about *Game Design Documentation* by writing a proposal for the game that you will create for your term project.

This assignment is worth **10 points**, or 10% of your term grade.

This assignment is due on NOVEMBER 17, by 6AM.

Refer to the lecture notes and the reading from November 2 (Game Design Documentation).

Term Project Overview

The **Term Project** will count for 15% of your term grade, plus this assignment for unit IV (which is another 10% of your term grade), plus up to 5 points (5% of term grade) of optional extra credit. Complete term project is due on December 15.

The Term Project contains the following main components:

- **Design Documentation** = 10%
 - i.e., this assignment (for unit IV), which is due on November 17
- **Game Implementation** = 10%
 - complete prototype should be done by December 9
 - final version of game is due on December 15
- **Presentation** = 5%
 - presentations will be 2-3 minutes long
 - MUST use slides (e.g., powerpoint or keynote, etc).
 - will be done in class on December 12
- **Technical Documentation** = 5%
 - this can be turned in along with the game for up to 5 points of EXTRA CREDIT
 - due on December 15, along with the game

The game that you build for your term project must be written in **Processing**.

The game must contain the following elements:

- one character that the human user controls
- at least one non-player character that is controlled by some type of game AI
- at least 2 out-of-game screens (e.g., main menu, user preferences, hall-of-fame, save game, load saved game, etc.)
- some **unique** elements—you cannot just copy an existing game! (uniqueness doesn't mean complex)

You may choose to do your term project with ONE other person, but here are the rules of working with others:

- you will both get the same grade
- you will both take responsibility for completing the project, despite any possible arguments you might have along the way (I am not a marriage counselor who can help resolve your differences—by choosing to work in a 2-person group, you are agreeing to resolve any differences between you!)
- you will *each* write a short (no more than one-page) description of what you did on the project and what the other person did

Assignment Description

For this assignment, you will write the design documentation for the game that you will build for your term project. I expect to receive something on the order of 5 pages long, including artwork, screen drawings, etc. (No more than 10 pages!)

Remember to design a game that you can build in Processing between now and December 9!

Refer to the lecture notes from November 2 and the reading given out in class: *Game Design: Theory & Practice* (2nd Edition), by Richard Rouse III. Wordware Publishing, Inc., 2005, chapters 17 and 19.

Your text should be written in clear English and should be spell-checked and grammatically correct!! I will mark off for text that is poorly written. *I know that many of you are non-native English speakers, in which case I will give you the opportunity to make corrections to language errors and resubmit for a revised grade if the language aspect is a big problem in your submission.*

Your design documentation must contain the elements listed below. It is understood that elements marked “draft” may change as the game development process unfolds.

1. Concept Document (*2 points*) This should be an overview of the game. Start by specifying the genre of the game and the target audience.
2. Competitive Analysis (*1 point*) Critique at least 2 other games that are on the market that are in the same genre as your game. Compare your game design to these two games.
3. Design document: (*3 points*) Describe in detail each of the following:
 - Game Mechanics (rules and bounds)
 - Artificial Intelligence (behavior rules for non-player characters and game environment)
 - Game Elements (characters, objects, items)

A guideline for this section is that it should contain enough information so that I could go out and write the game and it would closely resemble what you had in mind.

4. Flowcharts (*0.5 points*) Include flowcharts for out-of-game sequences (e.g., main menu, preferences, etc.)
5. Story bible (*1 point*) Describe the context of your game and include any history and background that I will need to know in order to understand your game. Include description of the characters in the game (e.g., “Mary is a smart rabbit who always chooses eating carrots over any other activity.”)
6. Art bible (draft) (*1 point*) Sketch out the art assets that you will need for your game. This doesn’t have to be beautiful (I won’t grade you on your drawing skills). If you choose to use other people’s artwork (e.g., images you grab from the web), make sure that you only use assets that are FREELY available and open-license. Learn to check web pages for this crucial aspect, which could completely derail a game (and your start-up!) if you use something proprietary and get sued.
7. Storyboard (draft) (*1 point*) Create a game state diagram showing each scene in the game as a node in the diagram. Links in the diagram are the actions that the user can take or probability that the game engine shifts from one scene to another.
8. Development schedule (*0.5 points*) List the steps you plan to take to develop (code) and test your game. The game implementation should be completed by December 9—so put that in your schedule!

Submission instructions

- Put all your documentation together in one PDF document.
- Submit your assignment electronically, using the submission page linked on the class web page.
- Note that I will increase the limit on the size of uploaded documents to 10Mb. If this limit is a problem for you, try shrinking the size of any artwork before you insert it in your document (e.g., using Photoshop or Graphic Converter). If this is still a problem, let me know.