My First Video Game

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Description

For this assignment, you are challenged to create a unique side-scrolling platformer game (or another style, pre-approved by the instructor). Sidescrollers are one of the earliest game genres, with some of the biggest hits such as [Lunar Lander](#) (1979), [Pitfall!](#) (1982), [Kung Fu Master](#) (1984), [Super Mario Brothers](#) (1985), [Castlevania](#)(1986) [Metroid](#) (1986), [Contra](#) (1987), [Altered Beast](#) (1988), [Ninja Gaiden](#) (1989), [The Amazing Spider-Man](#) (1990), [Sonic the Hedgehog](#) (1991), [Battletoads](#) (1991) [Street Fighter II](#) (1991), [Popful Mail](#) (1991), [The Lost Vikings](#) (1992), [Aladdin](#) (1993), [Gunstar Heroes](#) (1993), [Super Metroid](#) (1994), [Earthworm Jim](#) (1994), [Donkey Kong Country](#) (1994), [Gex](#) (1994), [Zorro](#) (1995), [Metal Slug](#) (1996), [Worms Armageddon](#) (1999), [Viewtiful Joe](#) (2003),[Cave Story](#) (2004), [Alien Hominid](#) (2004), [Maple Story](#) (2005), [Penguins of Madagascar](#) (2005), [QWOP](#) (2008), [Braid](#) (2008), [N+](#) (2008), [Trine](#) (2009), [Splosion Man](#) (2009), [Cananbalt](#) (2009), [Robot Unicorn Attack](#) (2010), [Limbo](#) (2010), [Super Meat Boy](#) (2010), [Kirby's Epic Yarn](#) (2010), [Bit Trip Runner](#) (2010), [Terarria](#) (2011), [Dustforce](#) (2012), [Guacamelee](#) (2013), [Flappy Bird](#) (2013), [Shovel Knight](#) (2014), It is up to you to determine what your game is about, who is the target market, where it is set, and why is your game fun; as you can see, there is a vast range of mechanics out there.

Restriction: You use a newly public domain property as your storyline, theme, or inspiration. There are many ways to take a license and make it work for you, be creative! When I worked in the game industry, I had to write dozens of pitches for "the game version" of board games, books, movies, or game shows.

▶ Game Dev 101 - A Request for Proposal

GRADUATE STUDENTS

All graduate students must select an interactive project that will propel their final thesis project. Determine the topic, game type, platform, and reasoning for making the game. For the scope of this class, consider this an experimentation or iterative step towards your final idea. For example, if you are exploring the horror genre and want to make a whole horror experience, perhaps you should make a game based on "Light and Darkness" and explore different lighting strategies to create "scary" environments and characters or gameplay.

Final Build Requirements

It is challenging to accurately measure what makes a "good" game vs. a lousy game. For instance, how can you compare all the different games you played for homework? A MINIMUM list of assets that MUST accompany a final game to give everyone a fair idea of what is expected for their project. You can use this list to backward engineer your game design.

- **One unique gameplay feature per person**. The game should have exciting gameplay mechanics that differentiate it from the demo project. If you are working in a group, ideally, each feature exemplifies an aspect of your theme. Each member of the team must implement a feature. Here are some unique mechanics for projects I've made, you can start here or invent your own!
  - Web Swinging,
  - Shield Throwing/Reflection,
  - Swimming,
  - Stealth/Hiding from enemies,
  - Dialog Trees,
  - Advanced Platforming (Wall Jump/Ledge Grab/Air Dash, etc...), Switching between characters, Bangai-O (1999) like touch screen shooter controls,
  - unlockable powers that make the player crisscross the environment in new ways like Shadow Complex (2009),
  - air flight
- **A Level**. A level is like a chapter of a book. It has a beginning, middle, and end. It typically has one setting and a subset of characters from a larger narrative and denotes a typical gameplay session. Game sessions can be very short for phone games, usually under 10 minutes. For console games, levels might take 20-40 minutes, reflecting a player's more significant time commitment on specific platforms. In this case, we are creating our first web game, so I expect your project to have a Golden Path gameplay length of 10 minutes. "Golden Path" refers to the smallest amount of time an expert player can complete a game (or level) without the use of glitches or cheating from the beginning of gameplay to the end of gameplay (menus, load screens, etc do not count). Novice players may take longer, but there needs to be enough INTERESTING content for the BEST player to complete it within the Golden Path. Finally, a level leverages unique gameplay features to **create exciting scenarios and challenges** for those features. If your character can shoot a shotgun, you should make sure there are some zombie-shaped targets somewhere in your game so that your shotgun can be useful.
- 1 Tileset for this level (See Kenney's Platformer Graphics Deluxe as an example of a Tileset and naming convention)
  - 20 **ground tiles** following the Kenney's Platform Assets naming convention
  - Three Breakable objects (with two frames of animation)
  - 15 **flair items,** unique decorations that are used a few times. Like a statue (Alternate skins do not count)
  - Two **background** objects that are animated (like flags or fire). At least ten frames of animation total.
  - Three Particle Effects
- **Player Character** with five **animations**. with at least 50 frames of animation total.

- A **Title Screen** with
  - The game controls
  - Your names, class name, date, Professors name (Ken Thompson)
- Two enemy or NPC characters with three animations each and a minimum of 21 frames each
- at least two music tracks (menu and game) sourced from freemusicarchive.org or created by yourselves
- 20 sound effects sourced from freesound.org
- Start Menu
- Win/Lose Menu
- Credits Menu for all of your teammates, as well as all any sound effects or other open-source assets that require attribution

Tips

- Someone on the team creates a Github project and starts it with the Unity .gitignore
  - Invite your teammates and me as a collaborator (use netID)
  - Use the Wiki and task tracking on Github to keep track of your tasks.
  - After the gitignore is setup, don't forget to [set up GITLFS attributes](#).
  - Create a new unity project with the Corgi engine
- When using OBS, be sure to have audio from the game recording as well!. Format: MP4, 60 FPS, 50 MBps bitrate, Full-Screen Capture at 1920x1080 resolution (The resolution of your computer/game).
- Github also offers a Trello-like website, which is also useful as a task tracking system for groups of students. Make sure to write down every character, menu, sound effect, mechanic to program, and other assets, then assign people to each task on Github Issues on your TEAM repo. https://guides.github.com/features/issues/ Check out my Github Additional Features

▶ Game Dev 201   Github Additional Features

Deadlines

A Game is rarely complete and often takes many iterations before it gets to a workable state and is only "graded" once by the consumer. These deadlines will assist you with milestones to keep you on track. We will be playing a stable build of your game in class on each of these milestone days and providing feedback. You should make sure you have made significant progress since the last check-in. Historically, groups missing a feedback session (not providing a stable build on the day) is equivalent to a grade point difference in the final. It is up to you to make consistent progress(which counts as your participation).

--- See HuskyCT for dates ---

One Sheet

One sheet is an industry term for an executive summary and provides a high-level overview of your game. It is typically 1-3 pages depending on the scope of a project and should emphasize the game's uniqueness using upbeat and active language. For instance, "GameDevTycoonXtreme is a multiplayer business management game for college students and adults who want to simulate developing games commercially." First, create a one-paragraph overview that describes your game to someone new to the project. If you are having trouble writing this, it helps me to think about how [Don LaFontaine](#) might describe my game.

See my One Sheet homework assignment for more details. <LINK REMOVED>

Next, list your mechanics, storyline, or other pertinent information. For some games, the narrative is essential, and we want to list the characters and synopsis, but if you are making a strategy game, perhaps the style of gameplay is more important. If you wish to change your idea later, you can, but it should give a clear picture of who is responsible for what.

If you are joining a team with an existing One Sheet, go over it as a team and agree that "This is the game you want to make" as a team. All members of a team are equal partners.

- **Once you've agreed and altered the one sheet to your liking, remember to submit the document to the google drive .../DMD2500_LastNamesAlphabetical_Prototype_OneSheet.pdf**

Reasoning

Communicating a massive game design to a team of hundreds can be very difficult and takes hundreds of pages of GDDs. For the purposes of our class we won't invest as much time with the pre-production documentation process. Instead, you can use this document as a guide stone of the core values of your game through an iterative development process.

Inside the game industry, game designers write One Sheets for prospective clients who are looking for game concepts or iterations of game concepts for their own products.

(Although we won't go so far in this class, here is an example of a more complete Bioshock [Preliminary Game Design Document](#).)

Prototype

The critical part of the assignment is when teams repeatedly iterate on their gameplay and arrive at a set of mechanics that, while rough, represent the direction the team wants to take the game. Have a working example of your game's core mechanic(s). No level design or art is needed.

Level Design Document

A Level Design Document typically stands separate from a game design document and goes into great detail on the layout and pacing of a level using a set of preexisting mechanics. The Game Design Document describes how those mechanics work. Write a document that thoroughly explains the level you plan on creating.

Examine my Level Design Document Template for more details. <LINK REMOVED>

For some theory on how to create levels watch my video
▶ Game Design 101 - Theory, Layouts, Pacing, and Documentation and for an example, checkout the [Grim Fandango](#) level design document.

Requirements

Create a document that adequately describes your proposed level. From this document, any level designer should be able to manufacture your level in the way that you envisioned. The following points should be addressed

1. Why is this fun?
2. What makes this sequence interesting/memorable? Times when the player shouts WOW or OMG!
3. How will you communicate to the player what to do?
4. How does this level fit into the overall narrative or game flow?
5. What does it look like
6. What does the player do
7. List all assets used (art, sound, animations, models, materials, etc.)
8. List all programming tasks, what features do you need to implement?
9. Write ALL DIALOGUE as it appears in the level
10. Illustrate the map/flow of the level

Reasoning

Thinking through a story is a valuable process in saving time by working through issues on paper before going to the main game. It also makes the level development process simple! You've generated a list of tasks and know exactly what you need to do, like a blueprint.

Alpha

In terms of code, all gameplay/programming features need to be implemented by this date. This includes a basic representation of all the menus and a playable level. Because an art and

design team needs time to implement their work AFTER new systems are programmed, art and design tend to work up to the last second. After Alpha, the code team should focus on fixing bugs and helping artists implement their work within the game. All your mechanics should be functioning, with maybe some tweaking. Art and level design can still be in the early stages.

Beta
Beta is a valuable period within game development. Although some obvious cosmetic and bug fixes happen during this period, the game designers on the project should use this time to tweak stats, drop rates, etc to fine-tune the game. Most things should be finalized, with a couple of bugs and fixes still pending. Art and level design should be done or mostly done.

Gold / Final / Lot Check
The final version of the game. Everything is done. The game is entirely playable and a blast to play.

How to Handin work each milestone
- Follow along with huskyCT for which day your Prototype, Alpha, and Beta are due. You must upload and host your game to the class google folder and share a link to the Microsoft Teams by 11:59 PM.
- You must also upload a full-screen video of your game to the class google drive folder, explaining what's going on. These are essentially your game explanation/ Build notes. Your assignments should already have the format etc. Add this video as a response to your original post about your project
- Once the games are uploaded, everyone must give feedback as a video playthrough (record your screen using OBS playing the game, narrate using your mic, or re-record a voice-over track explaining your feedback). This must be uploaded to Microsoft Teams as a response no more than five days after a game is posted. Post your response video link to comment on the video you're reviewing

Formatting: This is the format/file structure for each hand-in. Please make sure to change the "prototype" word with the appropriate milestone.

Google drive folder**/**
  DMD2500_LastNamesAlphabetical_Prototype_GameName.zip
   Additional Files inside the zip file except for video
  .../DMD2500_LastNamesAlphabetical__Prototype_GameName.mp4

FINAL GRADED SUBMISSION
In addition to the build in the google drive
.../DMD2500_LastNamesAlphabetical_Final_GameName.zip folder put
- **.../DMD2500_LastNamesAlphabetical_Final_thumbnail.png**

- put a **thumbnail**. This will identify your project in a grid on the web. The thumbnail could be a screenshot, logo, etc… and should be at least 1920x1080
- **.../DMD2500_LastNamesAlphabetical_Final_screenshot01.png**
  - 5-10 images of your game at 1920x1080 titled **screenshot01**.png, **screenshot02**.png, and so on
- **.../DMD2500_LastNamesAlphabetical_Final_description.txt**
  - put a text file in your zip folder called **description.txt** with
    - 1 paragraph written description of the game "The Back of the Box",
    - include your name(s)
    - Include any additional credits from other assets, audio, etc…
- Record a full screen playthrough with commentary from start to finish in .mp4 format

Rubric

	Needs revision	okay	good	excellent
Technical	The game runs but crashes often	This game has multiple bugs	This game has few or no bugs	There are no A level bugs and negligible amounts of other level bugs
Art	The art style has no cohesion and is mostly placeholder	There are multiple mismatching art styles and art assets within the game	The art style is unified in theme and there is little to no placeholder	The art style is unique and distinguished with no placeholder
Design	There are no clear goals or interactive elements	Interactive elements are mismatched or implemented poorly	Interactive elements work, but are boring or uninteresting.	The game mechanics are synergistic and fun.
Misc	There are no videos or screenshots. The final build has the default text on the webGL page	Some multimedia has been added but it is in the wrong format or named incorrectly	Some multimedia has been uploaded in the correct folder and named correctly	100% of videos and screenshots have been uploaded. Credits are appropriately attributed.

Menus (Graduate)	The menus lack flow or consistency	There are a few basic menus that lack thought	Menus flow correctly but lack movement	Menus are fully consistent and fully integrated into the game
Mechanical / Aesthetic Cohesion (Graduate)	The gameplay is interesting but unrelated to the overarching theme/story.	Some small aspect of gameplay meets the aesthetic	A case can be made that the mechanics match the aesthetic, but is not consistent	The gameplay fully represents the overarching theme or story
Sound (Graduate)	Audio is inconsistent in volume and style	Boring and repetitive music / sound effects without sound pooling. Music is choppy and doesn't flow from one scene to another	Music and Audio is interesting, but lacks variety or sound pooling	Audio has consistent volume, all sounds "belong" in the same world, 80% or more of player interactions with the world have audio cues or stingers