Submission Worksheet

IT265-002-S2024 - [IT265] Game Case Study 1

Submissions:

Submission Selection

1 Submission [active] 2/7/2024 4:41:03 PM

Instructions

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Step 1:
From this spreadsheet pick a game you plan to analyze (selection must be unique) and put your UCID to the left of it.
https://docs.google.com/spreadsheets/d/1acEHH2ymFQIeGGimqXyL1KO0Y4fG9IUt2Cbi6GAUslY/view
If a selection turns red, that means it's already chosen and you'll have to pick something else (it's first come first serve). Do not edit anyone else's content/selection and be mindful if multiple people are working on this sheet at the same time.

Step 2:
Use one of these sites to playtest, explore, and analyze your choice (note you'll have to do other research as well on your own):

1. https://www.free80sarcade.com/all2600games.php
2. https://games.aarp.org/category/atari-games
3. https://playclassic.games/games/action-atari-2600-games-online/keystone-kapers/play/
4. https://www.tripletsandus.com/play-classic-80s-arcade-games/play-atari-2600-video-games/

If for some reason none of these work, any alternatives work as long it's as close to the original game as possible.

Step 3:
Analyze, research, and review your chosen game. Collect resources (website links, etc that you used during the exploration) include these with the responses in the related sections. Fill in the responses of the below prompts/checklist/etc.

Step 4:
Save the worksheet. Export the PDF. Upload it to the mentioned branch name (below) on GitHub. Create a pull request and merge it to main. Upload the PDF to Canvas.

Branch name: M2-Case-Study-1

Tasks: 16 Points: 10.00

Game Overview (1.25 pts.)

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Task #1 - Points: 1
Text: Historical Context and Game Description

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Checklist   *The checkboxes are for your own tracking

#	Points	Details
#1	1	Game's title, developer, publisher, platform, and release date.
#2	1	Historical context of the game's release and its place in the industry.
#3	1	Game's genre and how it compares to similar games of the time.

Response:

Dig dug was released in 1982 by Namco. It was first an arcade game but was then ported to Atari once they obtained the license., and then a Gameboy version was released in 1992. This game was released during the so called "golden age" of video games, and its novel approach made it an instant classic and one of the most played games of its time. When this game was released, its controls, movement, and the whole idea behind it was seen as totally unique and innovative, and it was considered to be the first of its kind. The game is not quite a platformer, and to me, it is most similar to Pac man, where you can dig your own tunnels, and the goal is to hunt the enemies, not run from them.

Sources:

Dig Dug | Video Game History Wiki | Fandom

Dig Dug, Arcade Video game by NAMCO, Ltd. (1982) (arcade-history.com)

Task #2 - Points: 1
Text: Gameplay Mechanics

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Checklist   *The checkboxes are for your own tracking

#	Points	Details
#1	1	Discuss the core gameplay mechanics and how they shape the player's experience.
#2	1	Explain how players control the game and interact with it.
#3	1	Identify and describe any unique aspects or creative elements in the game's gameplay.

Response:

Dig Dug follows the main character in an underground area, full of monsters, with the goal of taking them down and moving to the next level. Walking in a direction digs a permanent tunnel anything can walk through. The controls and the classic up down left right, and pressing the button as releases a sort of air pump which can be used to inflate enemies, serving as a way to stun or kill them. Points are earned for each kill that you get, and you are able to earn bonus point if you crush monsters with the various boulders scattered around the map, and you can also get more points the deeper underground you kill the monster. The most unique aspect of the game is the freedom it gives the player to interact with and modify the stage as they see fit. This level of freedom was quite innovative and original for its time.

Software Architecture and Technology (1.25 pts.)

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Task #1 - Points: 1
Text: Technical Framework

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Describe the game engine and any special software (middleware) used to make the game. Explain why these were important for making the game work.
☐ #2	1	List the programming languages and software tools used to build the game. Discuss how these tools helped in creating the game's features.

Response:

The Atari version of dig dug was made with the Atari 2600 in mind, where the port was made with the Atari hardware in mind. For the original arcade version, it was made on the Zilog Z80 CPU, which clocked in at about 3 MHZ. Dig Dug has been able to stay so well-known because of its versatile nature. It controls only needing the cardinal directions and one button are easy to adopt, and as seen by an extensive list, has resulted in countless ports of the game to be released on dozens of consoles, up to even the PS4 and XBOX 1.

Task #2 - Points: 1
Text: Innovations and Challenges

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Identify and describe any new or unique technical features in the game. Explain how these features made the game different or improved it.

#2	1	Discuss any major difficulties the developers encountered while making the game. Describe how they solved these problems.

Response:

The main selling point of the game is the underground digging feature, allowing the player to carve out tunnels as they see fit. Creating a game with a dynamic playing field, changing all the time, was a technical challenge not really attempt before, especially with other moving enemies who needed to interact with these tunnels as well. However, its success in creating a stable environment allowed it to prosper and open the door for countless other digging games.

Dig Dug - Wikipedia

Gameplay Mechanics and Level Design (1.25 pts.)

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Task #1 - Points: 1
Text: Mechanics Analysis

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Checklist   *The checkboxes are for your own tracking

#	Points	Details
#1	1	Explore and describe the main rules and actions that players use in the game. Explain how these core mechanics define the game's playstyle.
#2	1	Discuss how the game's core mechanics keep players interested and involved. Describe the ways these mechanics make the game fun or challenging.

Response:

One the outside, the only controls dig dug has been moving, and using the pump, but there are many other hidden mechanics in the game. There are two types of enemies in the game, all of which are faster than dug, especially when dug is further slowed down by the action of digging. Enemies start trapped in isolated tunnels, but after some time, they will turn to ghosts and go directly toward dug, regardless of tunnels, in order to make time more pressing. It is easy to get overwhelmed without proper planning on how to take all the monsters out, either by inflating them, or by crushing them. Taking all these things together turn a simple game into something with much deeper strategy, making the game much more interesting. Take this with the fact that certain actions that are more difficult reward more points, it makes the replay-ability of the game much higher than many others during its time.

Dig Dug, Arcade Video game by NAMCO, Ltd. (1982) (arcade-history.com)

Task #2 - Points: 1
Text: Level Design

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Checklist   *The checkboxes are for your own tracking

#	Points	Details

■ #1	1	Describe the design of the game's levels or environments. Focus on the layout, obstacles, and visual elements, and how they contribute to the game's setting.
■ #2	1	Explain how the level or environment design affects the way players play the game. Discuss how these design choices impact the overall experience, such as creating challenges, guiding the player, or setting the mood.

Response:

Each level is many made up of several layers of dirt, with a small surface on the very top of the screen. Under the surface, there are several layers of dirt symbolizing depth, as well as enemies and boulders buried underground. In this game, the player interacts with the environment in an innovative way, since the main point of the game is to shape the level by digging in a way that helps you kill all the monsters and keeps you safe. The setting of the game is not the most visually interesting, but the idea of the player being in complete control of what the level looks shapes how the game should really be played. The depth feature also gives more challenges, because you get more points if you kill an enemy deeper underground.

Dig Dug, Arcade Video game by NAMCO, Ltd. (1982) (arcade-history.com)

● Graphic and Audio Design (1.25 pts.)
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Task #1 - Points: 1
Text: Visual Design

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Describe the game's visual appearance and the artistic choices made. Discuss elements like color, art style, and thematic consistency, and how they contribute to the game's overall look and feel.
☐ #2	1	Discuss the design of the game's characters and environments. Focus on aspects such as realism, creativity, and how they fit within the game's world. Explain how these designs enhance the player's immersion in the game.

Response:

Dig Dug is a very simple 8-bit game, utilizing solid colors with some textures in between for majority of the stage. All the rocks look the same, and all the enemies of the same type also look the same. The most interesting part of the visuals are the enemies, as they have various animations, such as spitting fire, getting crushed, being a ghost, and being inflated and exploding. For its time, Dig Dug looks visually very good, and it uses color and a simple style to build something that looks like it could genuinely exist in the world, making it seem much more familiar and immersive than a game like Pac man, which just exists in a void.

Dig Dug, Arcade Video game by NAMCO, Ltd. (1982) (arcade-history.com)

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Task #2 - Points: 1
Text: Audio Design

Checklist

#	Points	Details
☐ #1	1	Examine the game's sound design, focusing on the music and sound effects. Describe how they are used and their quality. Discuss any memorable or unique audio elements in the game.
☐ #2	1	Explain how the game's audio contributes to its overall mood and setting. Discuss how sound and music influence the player's emotional response and enhance the gaming experience.

Response:

One of the main features of dig dug is its original soundtrack. Using a combination of different pitched beeps, this game features several original tunes at different moments of the game and is constantly playing sound effects as the player does things. The sounds themselves can be quiet jarring, as there is never really a break between them. However, the sound does succeed in making the game more immersive and allows the player to get into more of a rhythm when playing the game.

● **User Interface and User Experience (1.25 pts.)**

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Task #1 - Points: 1

Text: UI Design

Checklist

#	Points	Details
☐ #1	1	Describe the layout of the game's user interface (UI) and how it functions. Discuss elements like menus, icons, and on-screen prompts, and how they help players navigate and understand the game.
☐ #2	1	Evaluate how well the game's UI communicates important information to players. Discuss aspects such as clarity, readability, and the ability of the UI to provide necessary game details without overwhelming or confusing the player.

Response:

The UI is quite simple for the game and is nothing revolutionary. At the top, you have the current score. At the bottom, you have the current level, and the life counter that gets depleted each time you take damage. When it comes to knowing things about the game, that's all there is to know, and the game communicates it in a way that was standard for its time. Other than the occasional blinking of text, it is pretty easy to read everything, and it is obvious when you are gaining points by the numbers popping up on screen after a kill.

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Task #2 - Points: 1

Text: UX Analysis

Checklist

#	Points	Details

☐ #1	1	Discuss the overall feel of playing the game, focusing on how different aspects of the game contribute to the player's experience. Analyze how these elements, such as ease of use, game flow, and feedback, affect the gameplay.
☐ #2	1	Evaluate the design decisions made to enhance the player's experience. Consider factors like tutorial design, learning curve, and player engagement. Discuss how effective these choices are in making the game enjoyable and accessible to players.

Response:

I would say that the overall feel of the game is pretty standard for its time. Simple controls, an obvious goal, a few fun mechanics, and obvious and expressive reactions to earning points make playing the game feel rewarding, especially when you earn extra points for killing the enemies in a more skillful way. There is no tutorial for the game, and I would say that there is quite the learning curve, but the skill floor is very low. Anyone could pick up the game and do fairly well in their first few minutes, but going fast and earning tons of points would require more time and skill in the game. This gives all players of different levels a way to experience the game and feel like they are succeeding in their own way.

● Narrative and Storytelling (1.25 pts.)

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Task #1 - Points: 1

Text: Narrative Structure

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Describe the game's story, including its narrative structure, main plot points, and the setting in which it takes place. Discuss how these elements come together to create a cohesive and engaging story.
☐ #2	1	Analyze the storytelling techniques used in the game, such as dialogue, cutscenes, or environmental storytelling. Evaluate how effectively these techniques convey the story and engage the player.

Response:

I would say that the main thing this game lacks is a narrative or story, but I don't think that it matters very much, as many other games during this time didn't have too much of a story either. We know that the guy's name is Dig Dug, there are monsters who want to get him, and he wants to get them back. The most character development we see in this game is that when there is only one monster left, instead of attacking Dug, he tries to run off screen instead like a coward, since all his friends are dead. But other than that, no real story, or cutscenes. The setting does exist in the form of the underground, with a few layers that show depth, but that does not contribute to any story, and is only for counting points.

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Task #2 - Points: 1

Text: Character and Integration

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Discuss the development of the game's characters. Describe their roles within the story, their personalities, and how they evolve throughout the game. Consider how the characters contribute to the overall narrative.
☐ #2	1	Examine how the game's narrative and characters are integrated into the gameplay. Discuss how story elements are woven into the game mechanics and how this integration affects the player's experience.

Response:

The only part of the game here that I would remotely classify as character development is when you kill all the enemies of the stage except one, instead of the last monster being aggressive and attacking you like normal, it realizes all his friends are dead, and instead tries to run away from dug, onto the surface, and out the side of the level to escape you. It's quite funny to see it become a coward after it's been chasing you all game. However, when it comes to the player character, there is no real development, and none of this really contributes to the games narrative, or lack of thereof. The only real game mechanic that steams from characters is that the guys name is Dig Dug, and he in fact is able to dig in the game pretty well.

● Impact and Reception (1.25 pts.)

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Task #1 - Points: 1
Text: Reception and Impact

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Research and summarize how the game was received by critics and players. Include key reviews, ratings, and player feedback. Discuss any notable praise or criticism the game received.
☐ #2	1	Analyze the game's impact on the gaming industry. Discuss how it may have influenced game design, trends, or inspired other games. Consider any lasting effects it has had on the industry.

Response:

In Japan in 1982, when it was released, it was the 2nd highest grossing game of the year. In north America, Atari sold about 23k Dig Dug arcade cabinets by the end of 1982. To say this game was a hit would be an understatement. It is still the 6th most popular coin-operated video game of all time, with its popularity being extended with dozens of consol ports over the years. The main criticism of the game is that the goal of each level was not always inherently obvious, and sometimes, the enemies could really catch you off guard by just phasing through the dirt directly into you, or by spitting fire through dirt when you think you are safe. This game has inspired countless games, including like a half dozen sequels, and practically every drilling/digging game that came after this gives credit to the idea of dig dug.

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Task #2 - Points: 1
Text: Cultural Significance

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Examine the game's cultural significance and the legacy it has left behind. Discuss how the game has been remembered over time and its status in the gaming community.
☐ #2	1	Describe the game's presence and representation in media, such as films, books, or online content. Discuss its role in fan communities and any influence it has had on broader cultural aspects, such as art, music, or social trends.

Response:

Since its creation, people have been putting in effort to keep this game up with the times. It has been ported to dozens of consoles, onto PC, and countless remakes and sequels have been made. The game itself is quite simple, so many of the games that came after it elaborate on its story and game mechanics. Like any other game, this one also has a diehard community of people who attempt to speedrun and beat high scores, and to this day, there are still several people going for world records. 1q

● **Reflection (1.25 pts.)**

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Task #1 - Points: 1

Text: Describe your personal experience playing the chosen game

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	Was it "fun"? What made it fun or not fun?
☐ #2	1	Is this genre/game-type aligned with personal interests?
☐ #3	1	What made you pick this game? Was it a good choice?

Response:

On a fun scale, I would rate it a 7/10. While it was quite simple, something about digging and crushing monsters was quite satisfying. My favorite genre of games are roguelikes, and this game kind of reminded me of one. While there was no upgrade and progression system, the idea of starting from scratch and seeing how far you can go fighting and exploring is a main core concept of a roguelike. The reason I picked this game is because when I was younger, I would go to a rock-climbing gym a lot, and in there they had an arcade machine with like 100 old games, and one of them was dig dug, and that was the one that was the most memorable and caught my eye the most.

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Task #2 - Points: 1

Text: Assignment Reflection

Checklist   *The checkboxes are for your own tracking

#	Points	Details
☐ #1	1	What interesting or new "thing(s)" did you learn during your research and analysis?
☐ #2	1	Did you find it was easy to come across the information you were looking for? What was your primary means of research/analysis?

Response:

Some of the interesting things I learned where mostly about the games hidden mechanics, because it added a layer of depth to the game that was not really visible from the surface. However, I was quite surprised while researching, because it felt like the info on this game was quite limited, and that was weird because this game really was extremely popular, so I excepted a lot more sources to be on the web. I was forced to use a lot of wiki and fan pages, as well as tech spec websites for my research.

End of Assignment