

# CART 351 - FINAL:

Title: The Daily Pixel

Prototype Link: <https://jacko-2026.github.io/MyWebsite/Prototype/Prototype.html>

Final Link(s): <https://jacko-2026.github.io/MyWebsite/Final/Final.html>

Presentation Link: [shorturl.at/fklnB](https://shorturl.at/fklnB)

Video link(s): <https://www.youtube.com/watch?v=AoKxKgOffqY>

EXAMPLE (Nonogram Site): <https://nonograms-katana.com/play/>

Presentation:

- What is my project?

My project is a daily web based activity titled "The Daily Pixel" in which users can complete a daily nonogram as well as create ones for other to play, compete online for time, complete randomized nonograms in of three difficulties while listening to music, and a bunch more.

- What is a picross?

A picross, also known as a nonogram, are picture logic puzzles in which cells in a grid must be coloured or left blank according to numbers at the side of the grid to reveal a hidden pixel art-like picture.

These puzzles are often black and white—describing a binary image—but they can also be coloured. If coloured, the number clues are also coloured to indicate the colour of the squares.

To solve a puzzle, one needs to determine which cells will be boxes and which will be empty. If guessing is used, a single error can spread over the entire field and completely ruin the solution. An error sometimes comes to the surface only after a while, when it is very difficult to correct the puzzle. The hidden picture plays little or no part in the solving process, as it may mislead.

Many puzzles can be solved by reasoning on a single row or column at a time only, then trying another row or column, and repeating until the puzzle is complete.

- How to play the "Daily Pixel"

1. When opening the game for the first time in your day (the game is a daily task), you will need to complete a small nonogram of 14 by 16 cells which have either been created by other users or "randomly generated" (from a list of pre-made puzzles).
2. After you've completed your daily puzzle you will receive 5 tokens; these tokens can be spent in the SHOP (to buy overlays/backgrounds) AND OR on

the JUKEBOX (1 token to skip, go back, and or repeat once).

3. You can then do three other things: Play the extras (Asteroids & Snake), Play randomly generated nonograms in one of three difficulties (Easy, Medium, Hard), and or Create your own nonogram for others to play in the Daily Pixel challenge.
- Paint Your Own: You're given a relatively small canvas where you can paint whatever you want but are limited to only black & white (black=filled/numbered cells & white=empty/blank cells), and once you're done painting you click submit after giving it a name and it's converted to a nonogram puzzle and placed in the Daily pixel puzzle possibility array.
  - Asteroids: A small pixel based game where users must blast around a small section of space both avoid and destroying oncoming asteroids [You loose if you get hit by asteroids too many times/your shield dies].
  - Snake: A small pixel based game where users must navigate a snake inside a square while continuing to eat and grow [You loose iff you bump into the walls or your own tail].
  - Random Nonogram: Players can compete with other users to complete different nonograms in one of three difficulties.
- Extras:
    - Paint Your Own: You're given a relatively small canvas where you can paint whatever you want but are limited to only black & white (black=filled/numbered cells & white=empty/blank cells), and once you're done painting you click submit after giving it a name and it's converted to a nonogram puzzle and placed in the Daily pixel puzzle possibility array.
    - Asteroids: A small pixel based game where users must blast around a small section of space both avoid and destroying oncoming asteroids [You loose if you get hit by asteroids too many times/your shield dies].
    - Snake: A small pixel based game where users must navigate a snake inside a square while continuing to eat and grow [You loose iff you bump into the walls or your own tail].
    - Random Nonogram: Players can compete with other users to complete different nonograms in one of three difficulties.
    - Shop/Tokens: As mentioned earlier, players will receive tokens from complete

the various games/puzzles on the Daily Pixel site with the basic Daily Pixel granting 3, Making Nonograms granting 5, & completing the Extra Nonograms granting 1 for easy/2 for medium/and 3 for hard. These tokens can be spent in the SHOP to buy various pixel art based overlays and backgrounds to customize your experience.

- Jukebox: While playing the nonograms (Extra & Daily Pixel) you will be granted a small jukebox in the lower right hand corner of your screen which you can bring up to check the title and artist of the current song as well as spend a token to skip, repeat once, or go back to the previous song.
  - Gallery/Comments & Ratings: After you complete a nonogram, you will be presented with your time and the name of the puzzle you completed. In this screen/state you will be able to see other users completed puzzles and their respect names (both the user's and the puzzle's) and either rate the puzzle you completed and or comment on others.
- Inspirations [Wordle, Unravel, Unrained, Mario Maker, Stardew Valley, Nonograms Katana, & Virtual Cottage]

#### Wordle:

- What is it: A web-based word game created and developed by Josh Wardle (a Welsh software engineer) that is owned and published by The New York Times (a New York based mass media company) where players must guess a daily five-letter word with only six guesses.
- Associated feedback in the form of coloured tiles indicating when letters match or occupy the correct position in the x by 6 grid are there to aid to players.
- Connection to my project: Like Wordle, I wanted to create a daily experience and a brain teaser which people could enjoy on their off time and share/ experience with others.

#### Unravel:

- What is it: It is a puzzle-platform game developed by Coldwood Interactive (a small and independent game company based in the university town of Umeå, Sweden) and published by EA (Electronic Arts) which is centred around a small anthropomorphic creature made of yarn named Yarny.
- In this game, players must navigate through a series of picture-esk environments using the unravelling yarn which makes up Yarny to solve puzzles all the while avoiding dangerous creatures, traversing obstacles, and avoiding completely unravelling all of Yarny's yarn.

#### Unrained:

- What is it: It is a co-op multiplayer game where you have to work together with your friends to build a train track across endless procedurally generated worlds.
- Every step of the process of getting the train to the designated end goal (a train station on the other end of the map) requires diligent planning and routine amongst players.
- One cannot simply place a track down for the train to progress further, players must mine iron and chop wood to construct tracks as well either clearing the way by chopping trees/mining paths in rocky mountains or establishing bridges across rivers.
- Additionally, players must also keep a watchful eye on early game trains steam as if not properly attended to, the train will explode and players will need to begin again.
- Connection to my project: Like Unravel and Unraveled! my puzzle game will compose of many individual steps/routines (Unravel: swinging, climbing, bouncing, and retracing yarn - Unraveled!: building, mining, and watching), but where as theres a merely a method to completion my game will use it to create a message/prove a point regarding routine itself and highlight the very actions that seem mundane.
- Similar to these two games, the addictiveness of the challenges imposed on my players will become a routine but where as in those games that was solely a way of maintaining their active player-base (and ultimately their income from/for the project), I will use this to further push my notion of empowering those that see meaninglessness in their daily actions.

#### Mario Maker:

- What is it: It is a 2015 side-scrolling platform game and game creation system developed and published by Nintendo for the Wii U, where players can create, play, and share courses online, free of charge, based on the styles of Super Mario Bros., Super Mario Bros. 3, Super Mario World, and New Super Mario Bros. U.
- Connection to my project: The sole aspect of this game/game series which I was inspired by was the final screen state that appears after completing a created community level where the player is present with their time/their time vs others'/comments made by other users/the ability to comment on the current puzzle as well as others' comments/and RECOMMEND levels to play after.

#### Stardew Valley:

- What is it: It is a simulation role-playing video game developed by Eric "ConcernedApe" Barone, where players take the role of a character who takes over their deceased grandfather's dilapidated farm in a place known as Stardew Valley and proceed to aid the town/expand their farm/mine/fight

dangerous creatures/and so much more.

- Connection to my project: I want the calming atmosphere as well as challenge present in this game, because despite the sometimes hair-pulling difficulty to some of the tasks present in the game like catching a certain fish, the game is incredibly calming and pulls you back in without hesitation.

#### Nonograms Katana:

- What is it: It is a logic puzzle game developed and published by ucdevs where you solve logic puzzles called nonograms with the purpose of joining "the Guild" and rebuilding the settlement as well as collecting lost mosaics piece by piece
- Connection to my project: This site served as a principal inspiration for my project for obvious reasons, but the elements I wish it had (a sense of calm and a reason to come back/keep teasing my brain) are what is meant to be present in mine. I view this site as a good foundation for something greater (The Daily Pixel).

#### Virtual Cottage:

- What is it: It is a virtual space in the form of a game available on Steam that gives you a comfy place to "rest and be productive without any distractions" (Steam description).
- Connection to my project: Much like Stardew valley and unravel, the calmness present in this game is an element I wish to capture BUT the inclusion of the times/tasks/and music player are what really separate it as an inspiration. Much like this game, I want an experience AND a tool for my users (ie: something that can be used beyond its basics with the jukebox/shop/and extra games as well as comments).

- Who would be playing it?

Ideally the audience of my project would be the average commuter, the person who has a moment to burn while on the bus or metro or even while at work or school.

- Why should people play it?

As was initially intended from the very start with the proposal of my project, the purpose of my project is to give many people a sense of purpose and an understanding that there are communities for them as well as an importance to the most simplistic actions that we all complete daily (ex: dominos or a cog in a machine).

- Prototype vs Final

The main difference between my prototype and final is the obvious added extras

but now the ability to reset/complete and randomize the daily nonogram in different difficulties.

That said there is still much missing from my intended final design as I am more of a conceptualist then a programmer (meaning ideas come quicker to me then the actual writing of code necessary to complete said ideas).

- What's missing?
  - The gallery
  - A functional login
  - A connection between the painted puzzle - nonogram as well as the Daily Pixel
  - Customization
  - ETC