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Vampire Escape

I created a browser-based survival game influenced by retro text-adventure aesthetics with contemporary data-driven systems. I drew the idea from early computer adventure games such as *Will Crowther's Adventure,* and the resource-management/allocation through survival genres. My intention was to design an application that feels like an old technical interface while still using contemporary web tech. Focusing on systems, regulations, and limitations was to highlight the tension and urgency that may arise from resource scarcity, time limits, and restricted visibility.

The user must explore the area, gather supplies, and perform the necessary safety measures before the seven-minute countdown expires. The map is displayed like a colored ASCII grid, rendered in the browser, with fog and tile to tile revelation driven by JavaScript. Each tile has a function / level of danger, *or* purpose. System logs update when user position, *and or* visibility changes and based on available events. (Move is made when the user presses the arrow keys or W/A/S/D). To survive, user must understand the environment, manage resources, and make careful decisions. All actions are logged through a POST request to the Flask backend and stored in a JSON file. From a technical point, this project is built with Flask, Jinja, and Javascript, using fetch requests to pass information between the front end and server-side JSON logs. Every movement, decision, and resource transaction is stored, allowing the game to have collective data objects. The logs.json file, which serves as the game's persistent memory core, contains these entries. The leaderboard is created using

aggregated data that was taken from the raw logs and stored in a second file called game_logs.json.

In my game design class (CART 215), we examined Chris Crawford's 1990 taxonomy and the MDA framework (Mechanics, Dynamics, Aesthetics) Crawford distinguishes between interactive stories, toys, puzzles, competitions, and games, arguing that a true "game" must contain conflict shaped by obstacles, goals, and consequences. My project fits his definition of a conflict-driven game: the player must survive under strict time limits, gather essential resources, avoid dangerous terrain, and prepare the house before vampires arrive. These challenges create the tension and decision-making that Crawford identifies as core to game structure. Grid movement, fog / visibility, resource counters, crafting, damage rules, and the 7-minute timer are the explicit programmed rules that make up the gameplay. The way these rules interact throughout play creates the dynamics: graveyards become unsafe without garlic charms, resting heals but takes time, and resource scarcity forces planning.

Story & World structure

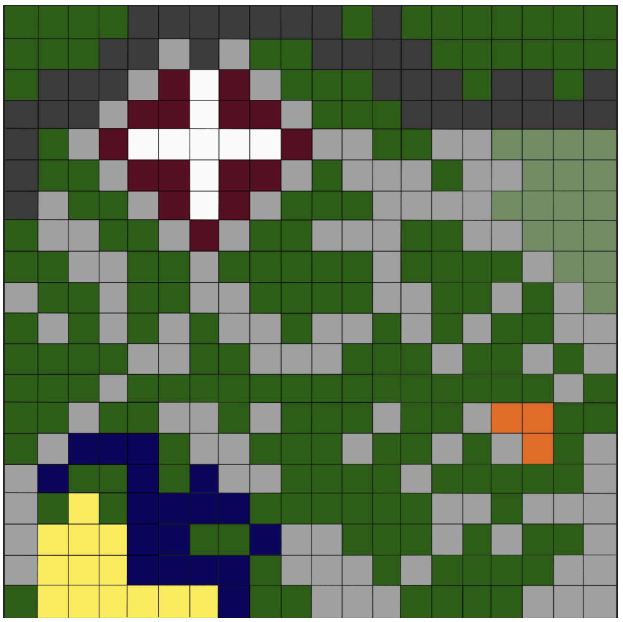
You wake up at dusk in a remote village right as a vampire coven returns to hunt.
Sunrise is in **7 Minutes.** You must:

1. Reach an abandoned **safe house**.
2. Replenish (food / rest / first aid).
3. Explore the area to collect **defence items:**
    a. **Garlic** (repels them, makes area safer)
    b. **Wood planks & nails** (board up doors/windows)
    c. **Matches / Candles** (light inside, weakens vampires)

If you waste time or fail to prepare, the vampires break in.

Locations / Map

- F - Dark forest
- R - Rocky road
- H - Safe house
- C - Church
- G - Graveyard
- S - Swamp
- V - Village square
- . - Empty field / generic area



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y=2 F R R R . V V V . F F F R R R F R R F R

y=3 R R R . V V V V V V . F F F R R R R R R

y=4 R F . V V V V V V V V . . F F . . S S S S

y=5 R F F F . V V V V V V . F . . . F . . S S S

y=6 R . F F . V V V . F F F . . . . S S S S

y=7 F . . F F . V . F F . . . F F . . S S S

y=8 . F F . F F . . F F F F . . F F . F . S

y=9 F . F . F . F . . F . . F . F . F F . .

y=10 F F F F . . F F . . . F F F . F F . F .

y=11 F F F . F F F F F F F F F F F F F F . F

y=12 F F . F F . . F . F F F . F F . H H F F

y=13 F . G G G F . . F F F . F F . F . H F .

y=14 . G F F G F G . . F F F F . F F F F F .

y=15 . F C F G G G G F F F F F F . . F . . .

y=16 . C C C G G F F G . . F F F . F . F F .

y=17 . C C C G G G G F . . . F . F F F F . .

y=18 F C C C C C C C G F F . . . F F F F . . .

Key Items:

- **Garlic ->** somewhere in **V (**market stall**).**
- **Planks ->** near **R** by a crashed wagon**,** and behind in the shed **H.**
- **Nails / Tools ->** shed behind **H.**
- **Rest / Recover ->** inside **H** once discovered.
- **Holy pendent ->** in **C**, helps with the final encounter.
- **Money ->** Scattered randomly and at crashed wagon (near **R**).

Win / Lose conditions

- **Track:**
    - Time_until_sunrise (e.g., time)
    - hp (health)
    - house_defense (how well you boarded up)
- **Lose** if:
    - Time reaches 0 and house_defence is too low *Or*
    - you enter certain tiles after dark without protection (e.g., graveyard with no garlic (vampires can be practicing necromancy)).
- **Win** if:
    - Survive the attack in the house

Resources

Crawford, Chris. 1990. "The Art of Computer Game Design." https://www.digitpress.com/library/books/book_art_of_computer_game_design.pdf.

Hunicke, Robin, Marc LeBlanc, and Robert Zubek. "MDA: A Formal Approach to Game Design and Game Research." https://users.cs.northwestern.edu/~hunicke/MDA.pdf.

Adams, Ernest. 2014. *Fundamentals of Game Design.* New Riders.

Crowther, Will, and Don Woods. 1976. *Colossal Cave Adventure.*