Retro Vault

By: CTRL-ALT-ELITE

Business Side

Project Overview

A curated library of retro video games

- Pong
- Galaga
- Space Invaders
- Asteroid

Problem - Why this matters

"Over 87% of classic video games are no longer commercially available."

- Retro games are disappearing
- Hard to access legally
- Younger people rarely experience the games that preceded them
- Preserving old game is culturally important

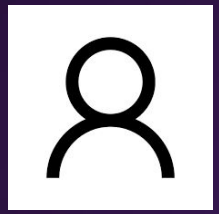
Solution - Retro-Vault

Retro-Vault is a digital library Atari games accessible, playable, and preserved for future generations.

- Centralized collection
- Modern Interface
- Educational and fun for all

How it works

- Access the library through simple UI
- Each game uses same modular framework
- Easy to add or modify games which will help to support growth



Target Audience

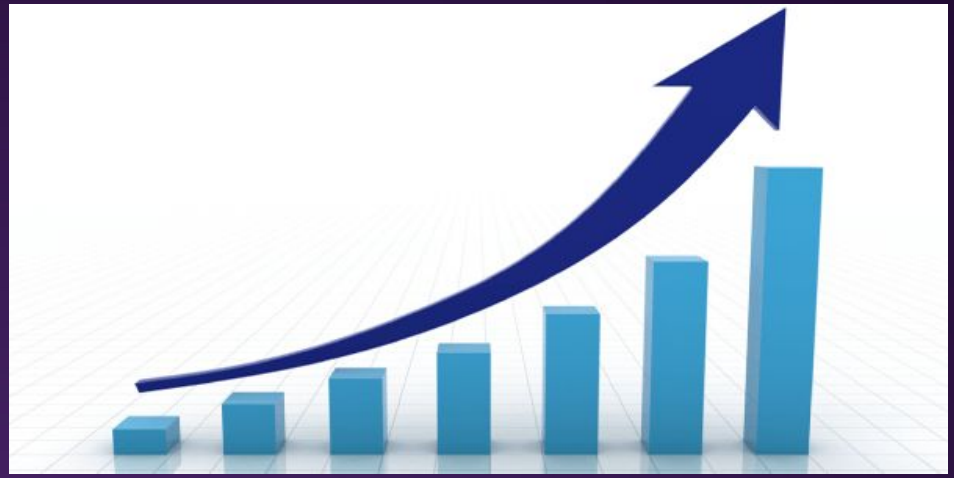
- Retro & Nostalgia Gamers
- Collectors and Preservationists
- Younger people curious about classic games
- Speedrunners or challenge seekers

What makes us unique

- Modular Design
- Educational + Entertainment value
- Modern tech on classic games

Sustainability

- Community Driven Updates
- Open Source Contributions
- Low maintenance scalability



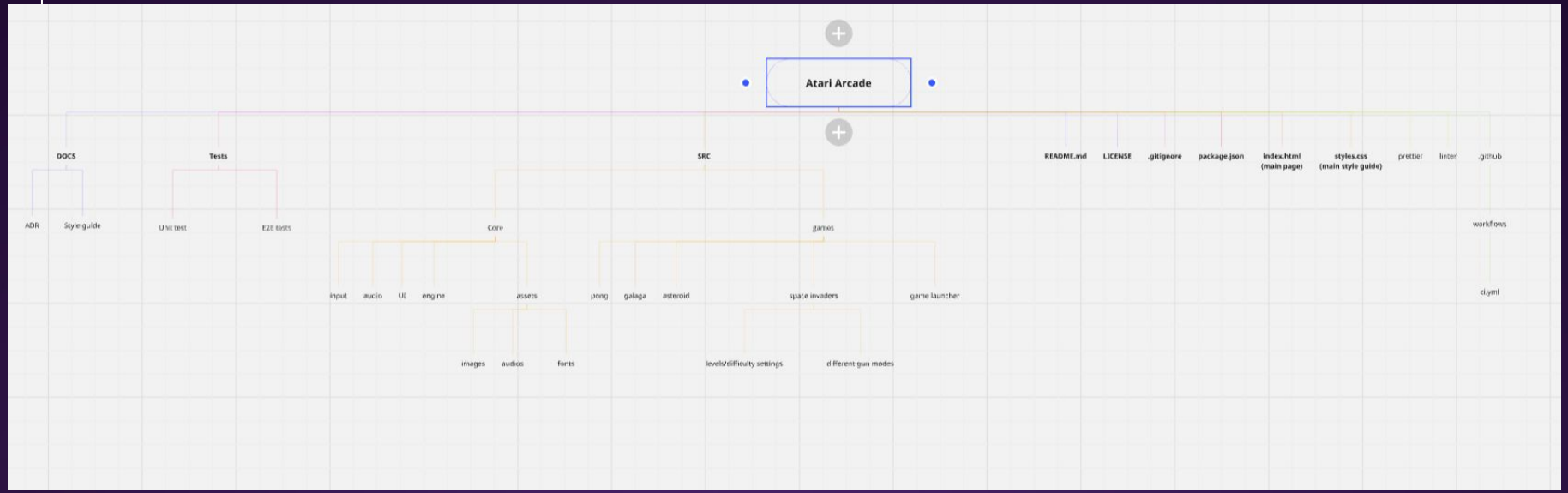
Marketing

Strategies

- Online Community engagement
  - Reddit
  - Discord
  - Github
- Educational Outreach
  - Workshops
  - Hackathons
- Social Media Presence
  - Facebook ads
  - Tik tok
  - Instagram

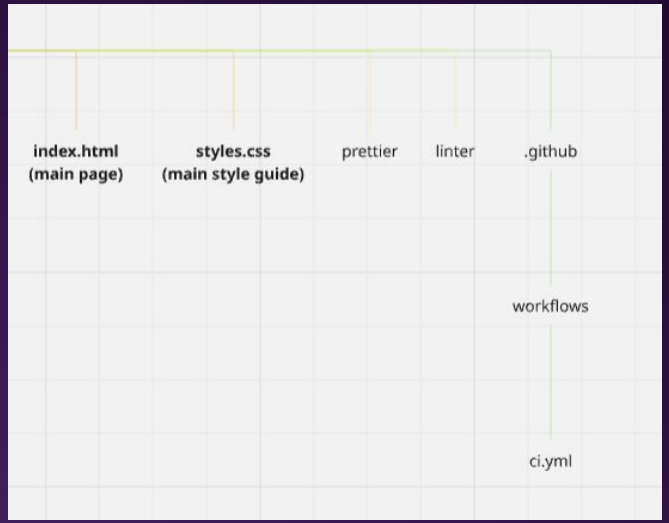
Tech Stakeholders

Architecture



Architecture

- Frontend framework (HTML/CSS/)
- Backend (Javascript)

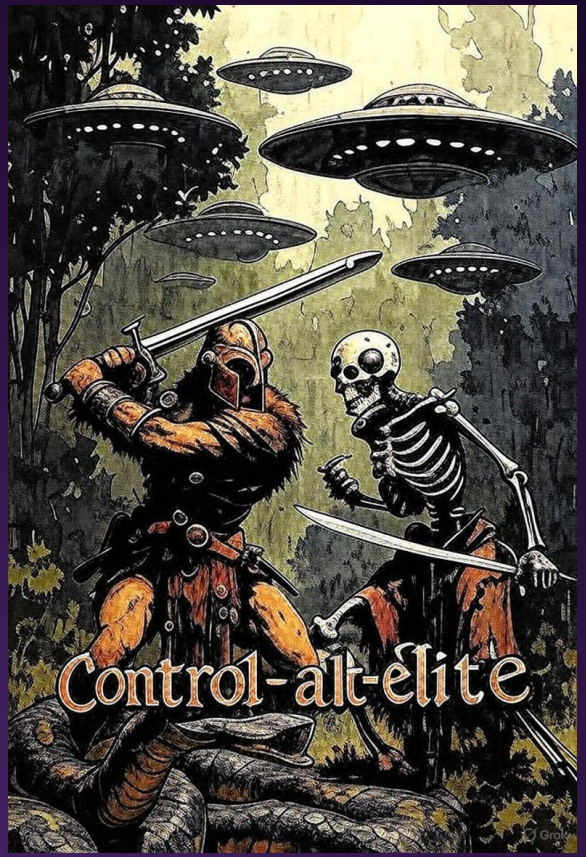


Planned Data Flow

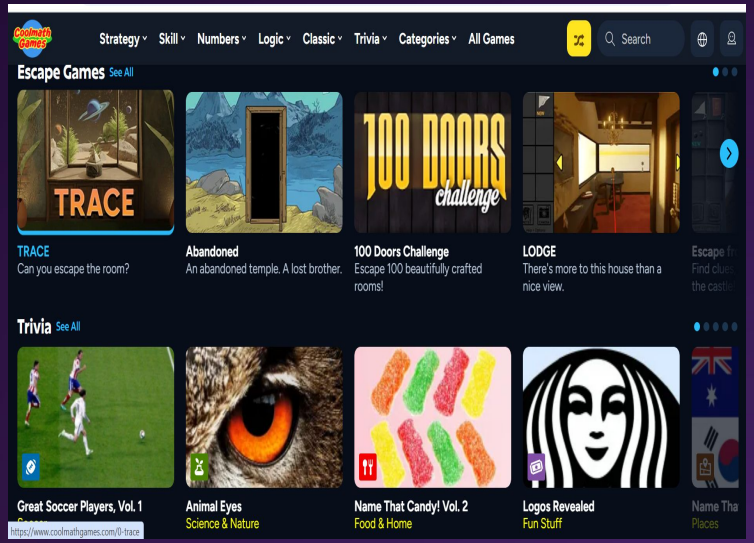
- User input → InputManager
- InputManager → GameState update
- GameState update → Renderer
- Renderer → Canvas
- GameState → ScoreTracker

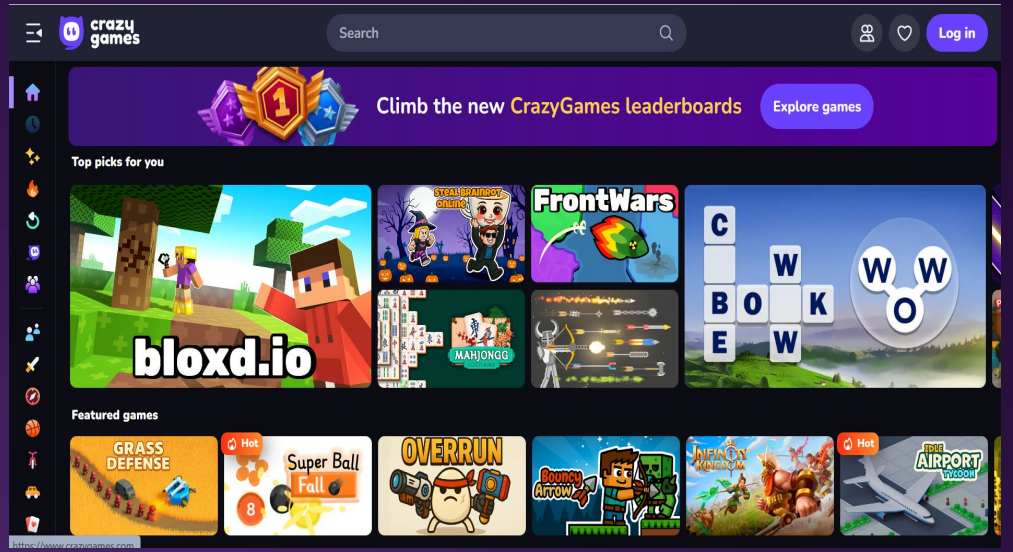
Local Storage Plan

- GameState → localStorage (scores, player settings, etc)
- localStorage → Load saved scores



Planned UI


Strategy
Skill
Numbers
Logic
Classic
Trivia
Categories
All Games
Search
Escape Games See All
TRACE
TRACE
Can you escape the room?
Abandoned
An abandoned temple. A lost brother.
100 DOORS challenge
100 Doors Challenge
Escape 100 beautifully crafted rooms!
LODGE
There's more to this house than a nice view.
Trivia See All
Great Soccer Players, Vol. 1
Animal Eyes
Science & Nature
Name That Candy! Vol. 2
Food & Home
Logos Revealed
Fun Stuff
https://www.coolmathgames.com/0-trace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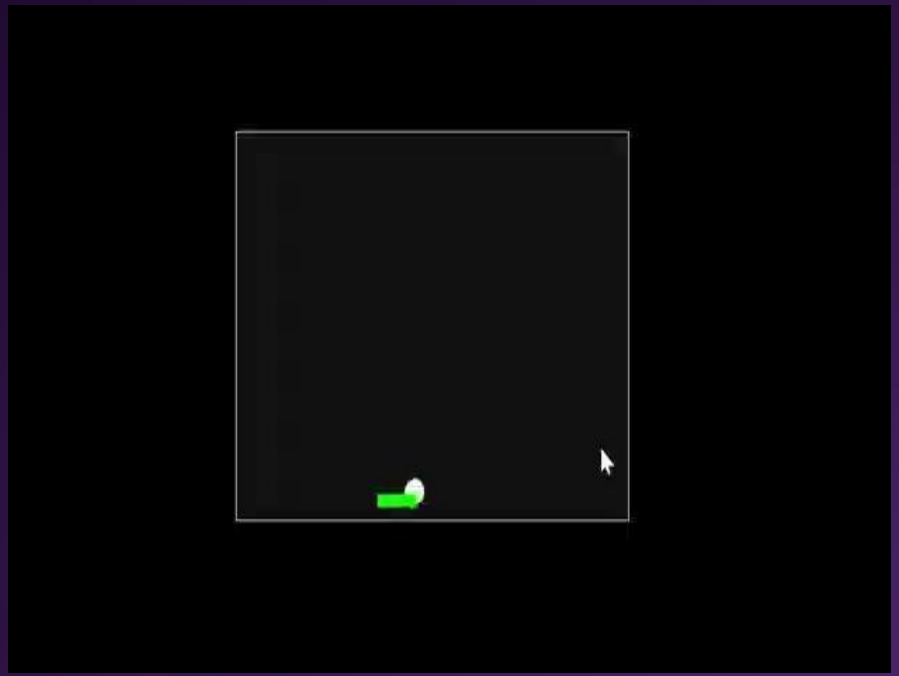
Hot

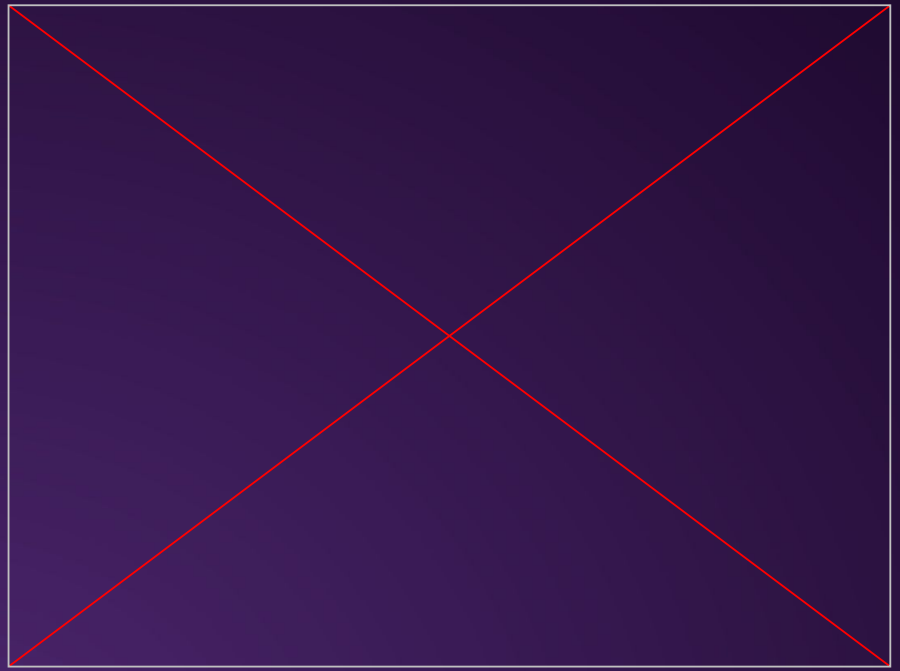
Canvas API

Pros: Native JS API for 2D graphics; everything at 60 FPS with minimal overhead. Proven in emulators like Javatari.
Implementation Steps:

1. **Setup**: Create <canvas> element (192x262 px) and get 2D context: const ctx = canvas.getContext('2d');.
2. **Pixel Rendering**: Use putImageData() for batch pixel writes—efficient for Atari's low-res sprites/backgrounds.
3. **Game Loop**: requestAnimationFrame() for synced 60Hz updates; clear with fillRect() for flicker-free redraws.
4. **Optimizations**: Offscreen Canvas for double-buffering; scale to modern screens via CSS.

Small Demos





Future Goals/ What's next

- Basic UI + Navigation
- Finalize Core Architecture
- Build Out the Basic Game Engine
- Convert Proof-of-Concepts Into Real Components
- Test LocalStorage