Final Project: Video Game Roulette

CS 2351 20334 – Unix Programming

The inception of "Video Game Roulette" originated from a widespread challenge among gamers: the overwhelming decision fatigue caused by choosing a game from a vast library. This issue, rooted in indecision, is intensified by the sheer volume of options, often resulting in wasted time and overlooked hidden gems. The goal of the project was to combat this dilemma by introducing an element of randomness, thereby reducing the stress of decision-making while adding a layer of surprise to gaming experiences. However, the journey to creating this tool came with its own set of obstacles.

One of the key challenges was identifying the correct Steam "common" directory, the typical location for installed games. Since directory structures vary based on system setups and user preferences, the script needed the capability to dynamically detect this folder. This problem was resolved by implementing a function that generated possible directory paths based on user input and confirmed their existence. For users with unique configurations, the script was updated to allow manual specification of the game directory, broadening its adaptability.

Another major hurdle involved excluding irrelevant folders to ensure only valid directories were considered in the random selection process. Folders such as "Steamworks Shared" or "Steam Controller Configs," which lack executable game files, needed to be omitted. To address this, the script incorporated an option for users to specify additional folders to ignore, streamlining the selection process and enhancing the overall user experience.

Testing and debugging also posted significant challenges, especially in ensuring the script could consistently locate and launch executable files across a variety of setups. Issues like missing executables, permissions errors, or failed launches required meticulous solutions. By including a loop to retry the selection process if no valid file was found and adding fallback mechanisms for execution (e.g., via cmd.exe on Windows), the script became more resilient. Further optimizations were made to handle edge cases, such as empty directories or erroneous user inputs, ensuring a robust and reliable tool.

Ultimately, "Video Game Roulette" emerged as an innovative and user-friendly answer to a common gaming problem. By addressing these technical and usability challenges, the project transformed the often-frustrating task of game selection into an exciting adventure. Overcoming these obstacles not only enhanced the tool's functionality but also underscored the value of user-focused design and thorough testing in software development.

I chose to design this project because I often struggle with deciding which video game to play from my library myself. With so many options available, it can be overwhelming to make a choice, leading to decision fatigue and sometimes even missing out on great games. This project is my way of creating a fun and simple solution to turn indecision into an exciting and spontaneous experience.

"Video Game Roulette" is a shell script tailored to randomly select and launch a .exe file for a video game from a designated folder. Inspired by the challenges of decision-making, this program eliminates the stress of choosing what to play, offering gamers a whimsical approach to rediscovering their library. By injecting a bit of randomness, the project aims to simplify the gaming experience and introduce the joy of surprise into every gaming session.

Indecision can take the joy out of gaming. Many gamers experience the paradox of owning a large library of games but being unable to settle on one to play. This issue isn't just practical; it's emotional as well. A growing library means games are often acquired and forgotten, collecting virtual dust as users struggle to pick a title.

For people like me, this decision fatigue can be frustrating. Instead of enjoying the time dedicated to gaming, I spend it scrolling through my collection, stuck in a loop of indecision. This problem robs me of spontaneous fun and prevents me from exploring all the gems I've collected over time.

The proposed solution is simple: a shell script that takes decision-making out of the equation. "Video Game Roulette" randomly selects and launches a game, introducing a sense of excitement and spontaneity. It's a tool designed to streamline the process while making gaming more enjoyable and stress-free. By incorporating randomness, this solution transforms indecision into a source of adventure, creating opportunities to explore overlooked titles in a user's library.

Time Tabel				
Week	Situation	Task	Action	Result
Apr 10 – Apr 17	Brainstorming Purpose Outline	Functionality Structure Randomness	List Features Research Requirements	Clear Plan Visualize Set Outcome
Apr 17 – Apr 24	Initial Scrip Testing	Write Script Logic	Develop Script Test Features	Usable Program Some Errors
Apr 24 – May 1	Debugging Optimizing Finalization	Address issues Optimize Execution	Debug Errors Refine Code Conduct Tests	Simplified Handled Errors Verify Info