Advanced Projects Design Doc #1

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Period: 5

***Goal:***

The goal of this project is to create a set of classic word and newspaper style games to be played in a digital format. The three core games to be created are hangman, sudoku puzzles, and crossword puzzles. All games will be made with a graphic UI outside of the terminal.

***Language + Main Libraries:***

Python and Pygame

***User Benefit:***

For the end user, the goal is to have a one stop app with many options of classic games for them to enjoy. All of these games keep the brain challenged and can engage the user for hours at a time. Since this app will be designed to play offline, users will be able to enjoy these classics at any time anywhere as long as they have access to a laptop.

***Why:***

Growing up, these games were a core component of my childhood. Whenever I got bored, I would find myself printing out the hardest sudoku puzzle online and spending large portions of my day trying to complete them. By creating these games in one app, other can experience the same joy with the ease and simplicity of being able to play these games on a computer.

***Minimum Viable Product:***

In order to ensure that these games are playable and can be digitized in an easy-to-understand way, I will begin by creating hangman. This will serve as a great introduction into familiarizing myself with pygame. Also, given that this is the simplest of the three games, it is the logical starting point for the application. Afterwards, I will move onto completing the sudoku and crossword puzzle games.

***Future Plans:***

* Creating local or online multiplayer options
* Creating a leaderboard for fastest solve times, number of puzzles solved, etc.
* Allowing people to create their own puzzles (primarily for sudoku and crosswords) to share with others