

Individual Report

Basic Information

Project Title: Unlock the Vault

GitHub URL: <https://github.com/gstawde/UnlockTheVault>

Milestones with deadlines:

2/4 - 2/16: GitHub setup, Flask project blueprint, finalize website design

2/17 - 2/29: User authentication (account creation, login/out)

3/1 - 3/20: Game functionality

3/21 - 4/10: Work on/Refine UI

4/10 - 4/15: Ensure user can view data from previous games if they have an account

4/16 - Finals: Testing, project refinement

Front-end and back-end technologies:

Front-end: HTML, CSS, JS, Node

Back-end: Flask, Python

Algorithms/AI schemes used in the core engine:

Generating Vault Key: When a user starts a game, a 6 digit random key is generated. Each digit can be a number between 0 and 9 inclusive. The user cannot see this key, as they are supposed to guess it.

Hints:

- Each user gets up to 3 hints.
- When a user requests a hint, the current guesses for each digit will be evaluated
 - If the digit is incorrect, the box with that digit will turn red; the number guessed will then be evaluated against the correct digit
 - Whether the guess is less or greater than the correct number will be shown for all incorrect guesses
 - If the digit is correct, box with that digit will turn green

Marketspace / Selling point:

- This game is simple to learn, yet still challenging enough to be consistently engaging.
- Since there are no levels nor a consistent answer, the game avoids becoming redundant.
- Educational: While it may seem a generally simple guessing game of chance, younger kids can use this to reinforce basic concepts like greater/less than that they'd encounter in a math class.