

The Coded Treasure: Game Design Document

Format

This is a text-based game.

Communication

The game will have text-based directions for what to do next. At times the game will indicate when the user is required to input text-based responses.

The player will be given text-based responses as to whether they have succeeded or not i.e. if the player fails the colour quiz, the program will tell them that they have been unsuccessful and therefore have been sent on a detour.

They will receive a text response from the program, informing them of the next steps. For example, during a conversation between the evil shopkeeper and the player (shown in text messaging format), if the player inputs an appropriate text response, they will receive a text response from the shopkeeper and the game continues.

Dynamics

Each game will be different, as it is based on the skill of the player. The game involves quizzes like a colour quiz or a code deciphering quiz. It is up to the skill of the player as to whether they can pass these quizzes and proceed in the game.

It is up to the player to decide whether they would like to “accept the challenge” shown. If they accept the challenge, the game starts. If the player does not accept the challenge, the game closes.

Three things that make each playthrough different:

1. **Colour quizzes** will be randomly generated by the game to ensure that the quiz is different every time and the player does not get used to a similar pattern. It is also up to the player as to whether they pass or fail the quiz.
2. **Code decipher quiz** (appears in the waterfall detour) will also be randomly generated. A short string of numbers will be generated. The player will need to work out how the number pattern corresponds to the alphabet. The player will then input the corresponding alphabet string into Python in order to pass the round.
3. **The number of lives** is affected by the player’s performance. If they play badly and lose all their lives, they lose the game. If they play well and get through without losing their lives, they win.

Aesthetic

As this is a text-based game, there will be limited graphics. However, I will try to include different colour font and text-based symbols.

Audience

type of player this game is aimed at

What type of player is your game aimed at?

This game is aimed at game players who enjoy problem solving under a bit of pressure. However, it is not limited to problem solvers. Casual players who enjoy a short game will like this too.

List of other games players might enjoy:

- Online escape rooms – visual (can be downloaded on most phones)
- The Witness
- Escape! - 逃出去 (a text-based game for people who are learning Chinese)

Virtual escape rooms are mostly visual and hands-on. You need to solve different puzzles in different sections of the room and collect key items in order to escape the room. Online escape rooms are often quite short like my game. I note that visuals make games much more appealing to play than text-based games.

The Witness “is a single-player game in an open world with dozens of locations to explore and over 500 puzzles.”¹ The aim of the Witness is to explore the island visually, solve puzzles and regain fragments of your memory so that you can find your way home. In comparison to my game, the Witness is much more complex, has stunning visuals and many more (harder) puzzles. It also has a much more complex goal – collecting and regaining memory. My game is a much-simplified version of the Witness and only has a few simple quizzes/puzzles in order to gain a straightforward goal – the treasure. It does not have visuals but is text-based.

Escape! – 逃出去 is a text-based create-your-own-adventure game. It is in a story form where you are a prisoner and need to make decisions in order to escape. In this game, if you make the right decisions (multiple choice questions), you continue the game. If you make the wrong decisions, you die. Escape has multiple paths and critical thinking is built into the game (making decisions). Escape is like my game in that it also text-based and tells a story. In my game, the goal is known, while in Escape the goal/ending is unknown. Escape has multiple pathways, whereas my game only has one detour.

How your game will engage their interest

The game is designed to be short and relatively easy to get the hang of. Players will feel a sense of satisfaction when they beat the storekeeper, or a sense of determination to complete the game when they are detoured after not passing the colour quiz. Players may feel a sense of excitement/urgency due to only having 3 lives and a certain amount of time to complete the quizzes.

The quizzes are doable and are not extremely difficult to solve. Once the player gets the hang of the game, they may be able to solve the quizzes faster. If a player fails two times in a row during a quiz, they will receive a handy hint about how to solve the code.

Story

Challenges

This game requires problem solving under timed conditions. Winning the game will require some skill, adept memory and quick-thinking.

Story arc

You are a knight in the Medieval Ages. Treasure has just been stolen from the king and it's your job to get it back. After finding out that the treasure is hidden in the cellar of a shop, you confront the

¹ https://store.steampowered.com/app/210970/The_Witness/

storekeeper. The storekeeper says he will relinquish the treasure (and be defeated) if you can solve his colour quiz. The colour quiz will be random sequence of colours that flash up on the screen. If you fail to solve it, you are sent on a detour to a waterfall, where you will need to decipher a code in order to get back to the shop. This code will be a number to letter code. If you pass the colour quiz, you will be given access to the cellar where the treasure is hidden. You will need to complete a short math quiz before you can open the treasure. Once you have accessed the treasure, you've won!

Summary: Solve. Defeat. Win.

Mechanics

Rules that are present in this game

1. The player must play as instructed by the text that appears during the game. If the input is incorrect, the section will restart.

Thought process:

```
input_is_correct = True

def section_restart():

    if input_is_correct == True:
        print("Input is correct. Proceed")
    else:
        print("Input error. Try again please!")

section_restart()
```

The player should respond as specified after the question i.e. Do you accept the challenge? Y/N. User input should be either "Y" or "N", not anything else.

2. Type in responses to the storekeeper
3. The colour quiz: a sequence of colours will flash up on the screen. The player will need to quickly memorise the sequence and type out the sequence in words.
Example: if    flashes up on the screen, the player should type "red, green, blue".
4. The code decipher quiz: a sequence of randomly generated numbers will appear onscreen. Each number corresponds to a letter of the alphabet.
Example: if "14 15 23 1 25 15 21 20" pops up on the screen, the player should return the string "nowayout" in order to pass the quiz.
5. The treasure quiz: A table of numbers and 3 coordinates will be generated. The player will need to locate the 3 numbers using the 3 coordinates. The user will need to multiply these 3 numbers and input the result into the program in order to unlock the treasure.

Example:

	1	2	3	4	5
A	32	47	21	64	46
B	36	22	84	74	33
C	91	10	36	44	93
D	46	62	25	75	28
E	37	42	13	11	99

Coordinates: C3, D2, A5

Required player input: 102672

6. All quizzes will reset with new values if the player fails.
7. The player has 3 lives for the code decipher quiz and the treasure quiz. If the player fails a certain quiz 3 times in a row, they automatically lose and return to the beginning of the game.

8. In all quizzes, players will receive a hint if they fail twice in a row.
9. All quizzes have a time limit. When the time limit is exceeded, the player loses one life.
10. At the beginning of the game, the player has the choice to accept the challenge or not.
11. At the end of the game, the player has the choice to replay the game.

Why I want to play this game

It would enjoy playing this game because it combines simple problem solving and gaming. I would also like to test whether I can solve problems under timed conditions.

Theme/ Design Pillar

Discuss the feelings or emotions you want players to experience. Write a minimum of 150 words and a maximum of 200 words.

I would like the players to experience some simple problem solving in the shape of a game. I introduced an enemy, the storekeeper, and a goal, the treasure, in order to give problem solving a sense of noble purpose i.e. you are the knight in shining armour who is solving problems in order to defeat the storekeeper and return the treasure to the king. The detour has been added to give players an additional quiz/challenge. Players should have a sense of achievement when they solve problems successfully. The quizzes are not necessarily tricky, but players do have a time limit and lives to make the game more exciting. I would like the players to feel that this game is different and worth playing, because it does not involve battlefields or shooting. The games are short, so if the players lose, it will not take long for them to get back to where they were.

Tagline

A valiant knight solves puzzles!

Game Identity

The Coded Treasure is a text-based game that focuses on problem solving in order to win. It is a single-player game where you are a knight whose mission is to take back the king's treasure. Unfortunately, there is an evil storekeeper who is guarding the treasure and won't give it up without a fight. He presents you with a quiz – you must remember a colour sequence in order to pass. If you fail the quiz, you are immediately sent on a detour to a mysterious land. This game will require you to solve problems within a time limit (and under a bit of pressure!). The game is designed to be played repeatedly, because while the problem-solving method for each quiz will not change, the players will be challenged with new code each time. The game is like a choose-your-own adventure, where your decisions will determine whether you the knight successfully solves the puzzles, takes a detour, defeats the evil storekeeper and/or obtains the treasure! Have fun!

Development Plan

See appendix for an explanation of which parts of my game will be ready at each phase.

Appendix

Development Phases

Phase 1	Introduction to the game established and runs smoothly
Phase 2	Colour quiz is developed, along with dialogue between the shopkeeper and player
Phase 3	Direct path to the treasure and treasure quiz created Concluding remarks added
Phase 4	Detours are created (this includes the waterfall detour [code decipher quiz]) Ready for play testing
Phase 5	Colours and graphics (if any) are added to the game Final testing and tweaking of the game (get others to try the game)