The Code Scroll

Game Design Document

Game Details

Game Name:

The Code Scroll

Game Genre:

- 2D Coding Game

Game Type:

- 2D Coding / typing game

Game Rating:

- E Rated game (Ages 10+)
- The game has been built to teach the players about the concept of Syntax

Target Audience

- Ages 10+
- Code Scroll simplistic design provides a detailed description of Syntax through a fun,engaging experience

High Concept

Overview

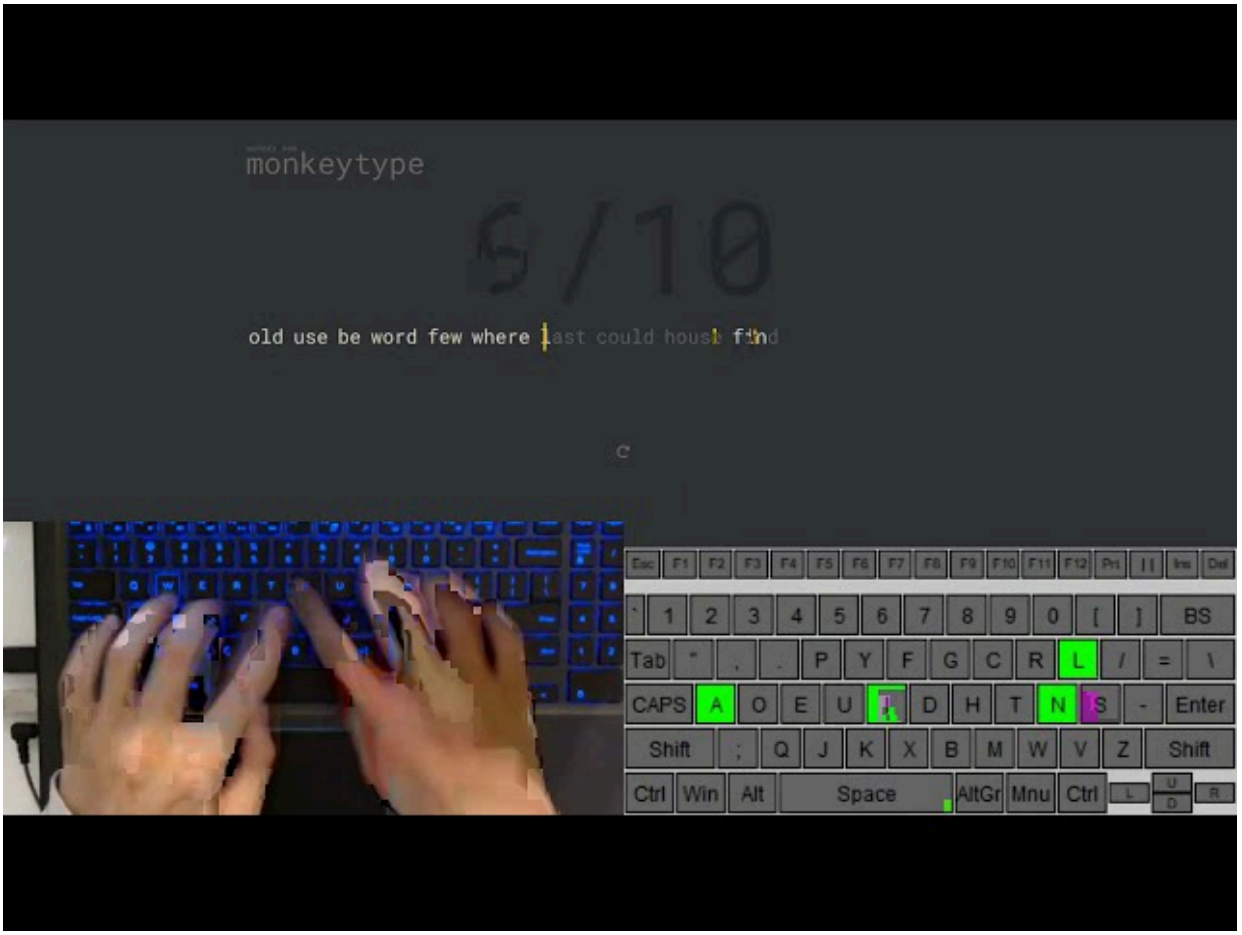
Code Scroll is a 2D Coding/Typing game that provides a visual description about Syntax and how to type the same by helping a ninja cross obstacles provided the correct code has been typed in a general outline

Core Idea

- People ages 10 and above can understand the mechanics at a glance and play the game.
- Slow paced and easily understandable mechanics that focuses more on the information being delivered

Gameplay

- Code Scroll will have a total of four levels where in each level the player will have to type out the code with a live timer countdown
- Players will see the correct code displayed on top of the screen , which will be displayed for 10 seconds
- After which a general outline of the code will be displayed and players can type on top off
- However each level will have a live countdown timer accordingly as per the level



Game Mechanics

Level 1

- Level 1 will be the header file **#include <stdio.h>**
- The beginning of the level will display **#include <stdio.h>** and after 10 seconds the player will have to type in the same
- A general outline of the code will be displayed as they type , which they can use to help them learn it with
- Ninja - The ninja must move as the players start typing and :
    - The obstacles can be over come by segmenting the code accordingly
    - if **#** is typed then the first obstacle is overcome , **include** is typed then the next and **<stdio.h>** then the next
    - if any single letter/character is typed wrong in these segments then the ninja will fall down and a game over is shown
- Obstacles -
    - Jump over a stationary fixed cube (like the game vector)
    - slide underneath a shuriken
    - run to the finish

Level 2

- Level 2 will be **Level 1** code followed by
- **int main() {**
  int a, b, sum = 0;
- The same rules will be applied as level 1
- Ninja - The ninja must move as the players start typing , The obstacles will be overcome when :
  - **int** is typed
  - **main() {**
  - **int** is typed
  - **a = 0,b = 0,sum = 0** is typed
- Obstacles -
  - Run and jump over a pit
  - Climb over a wall
  - slide underneath a shuriken
  - Run to the Finish

Level 3

- Level 3 will be will be **Level 1 and 2** code followed by
- **scanf("%d %d", &a, &b);**
- Ninja - The ninja must move as the players start typing and :
  - **printf** is typed
  - **(“enter two integers”)** is typed
  - **Scanf** is typed
  - **"%d %d", &a, &b** is typed
- Obstacles -
  - Climb over a wall
  - slide underneath a shuriken
  - Jump over a fixed cube
  - Run to the Finish

Level 4

- Level 4 will be **Level 1,2,3** code followed by

- **sum = a + b;**
  printf("Sum: %d", sum);
- **Ninja** - The ninja must move as the players start typing and :
  - **sum =** is typed
  - **a+b** is typed
  - **printf** is typed
  - **("Sum: %d", sum); is typed**
- **Obstacles -**
  - Run and jump over a pit
  - Jump over a fixed cube
  - slide underneath a shuriken
  - Run to the Finish


```
#include <stdio.h>

int main() {
   int a, b, sum = 0;

    // Read two numbers from the user
   printf("Enter two integers: ");
   scanf("%d %d", &a, &b);

   // Calculate the addition of a and b
   // using '+' operator
   sum = a + b;

   printf("Sum: %d", sum);

   return 0;
```

CODE

Ninja gameplay

Game Systems:

Game Flow

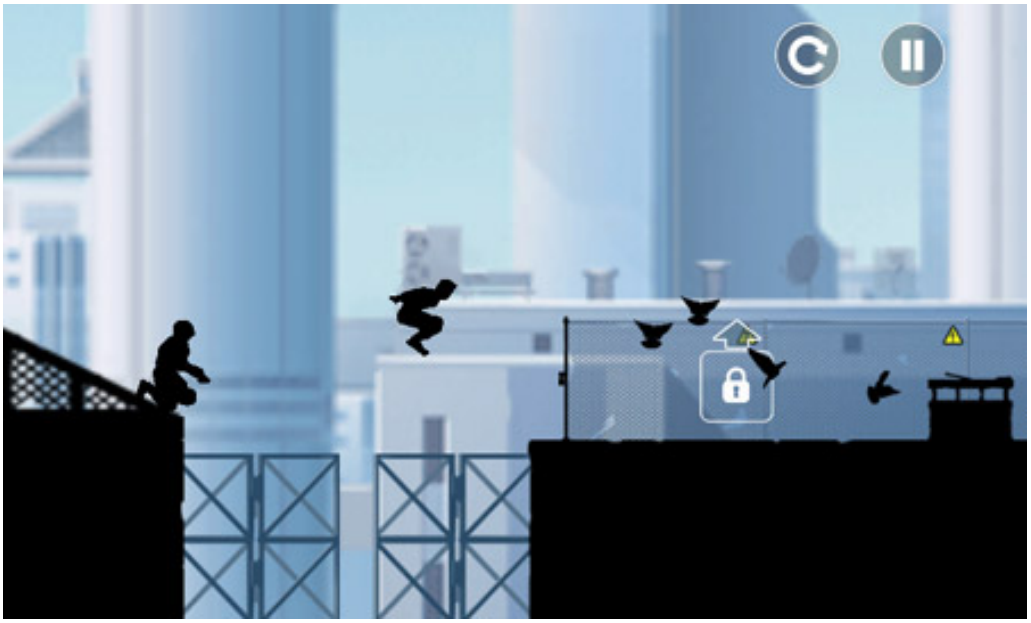
- The player begins the game by pressing play on the home screen
- After the game loads in, the player is loaded into the first level
- Each level is played until the final level

Level Design

- The screen that shows the code can be a samurai dojo
- The background of the ninja playing will simply show a black or white wall
- Each obstacle is shown in dull pastel colors , very minimalist

Art Style

- The code when being typed have to be shown as individual ninja with an animation of a personality of a samurai with sheathing / unsheathing of a sword , some parkour , maybe even speaking in japanese
- Like Vector / Monkey Type



Game User Interface

UI Flow:

https://miro.com/app/board/uXjVKieTDTE=/?share_link_id=485365461366

Audio Design

Background music - https://www.youtube.com/watch?v=koDJkhNYoEQ&list=PLfP6i5T0-DkLLepqWFIG0KI5IbWZXe2Np&index=4

or

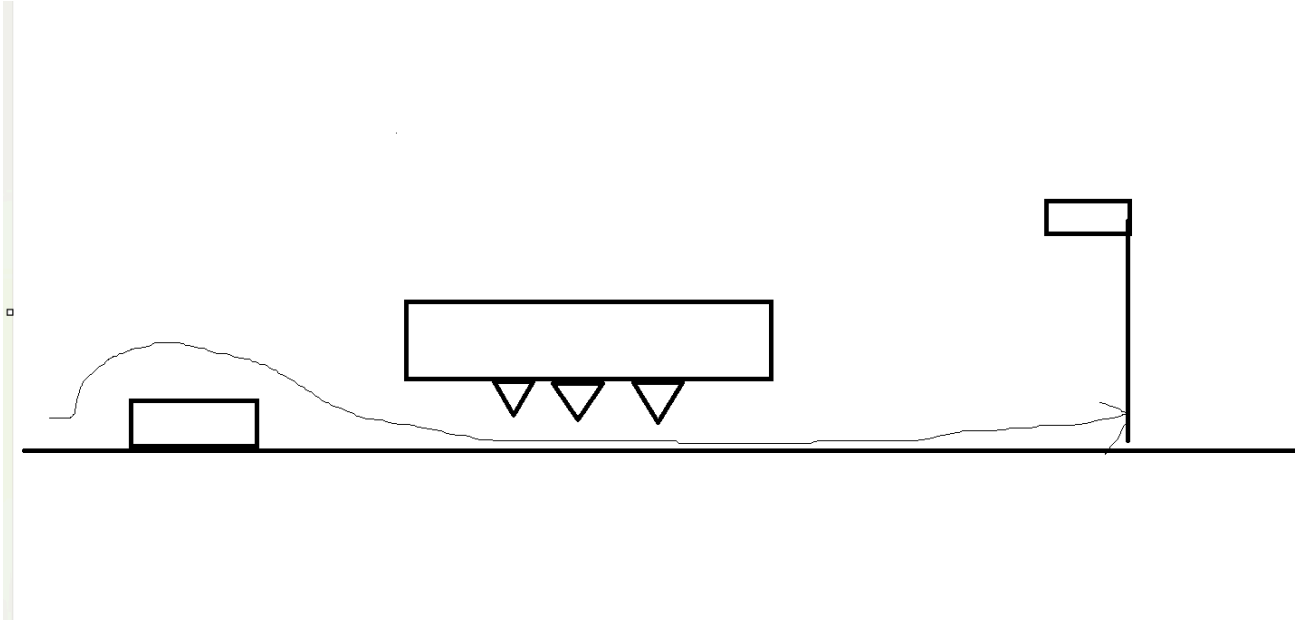
https://www.youtube.com/watch?v=1z3hl-dUgTA&list=PLfP6i5T0-DkLLepqWFIG0KI5IbWZXe2Np&index=15

ASSET LIST

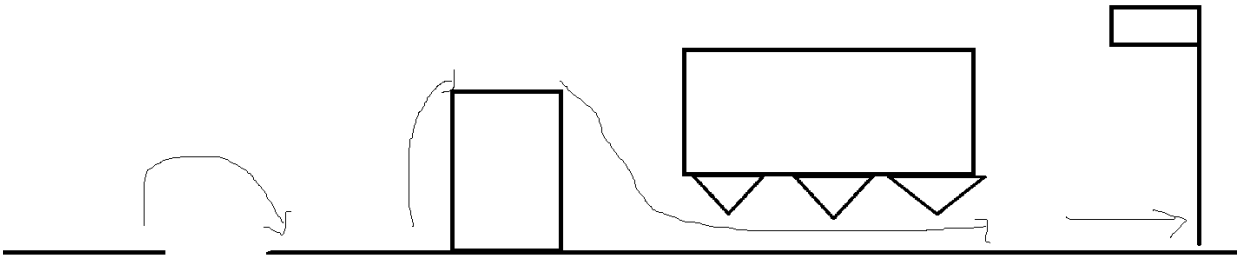
- Ninja Animations -
  - Vault over stationary cube
  - Jump over Pit
  - Wall Climb
  - Slide
- Word/Code Animations
- Dojo Background for coding area as well as for ninja (can be same but use different colors)

Level Design

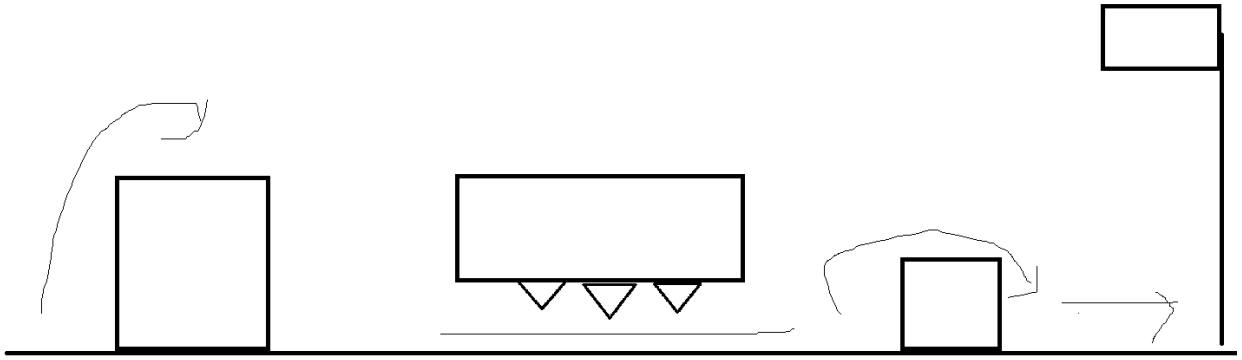
Level 1 :



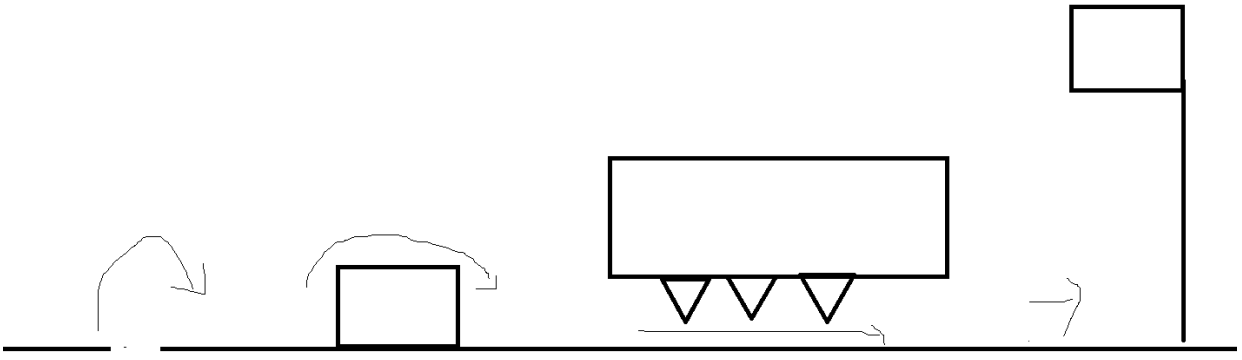
Level 2 :



Level 3:



Level 4:

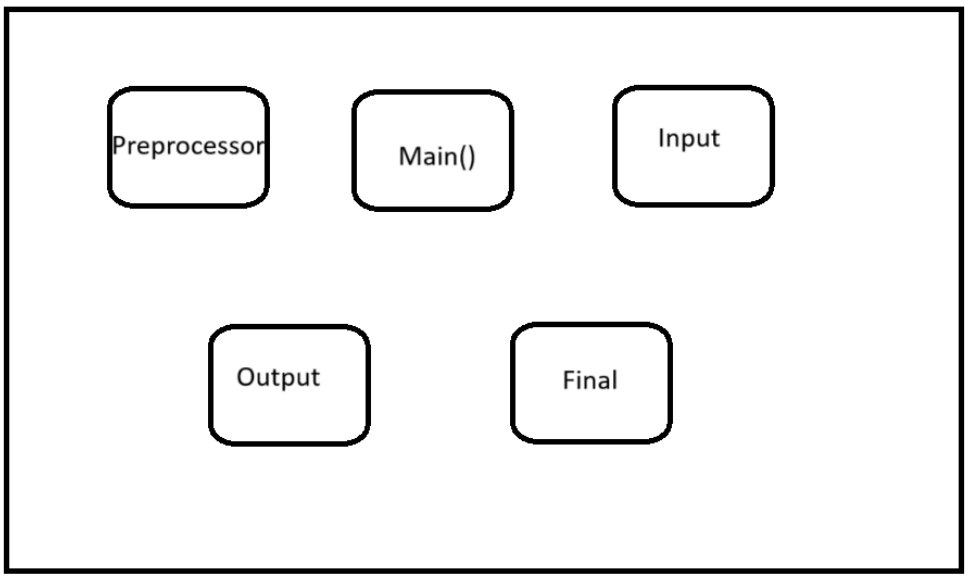


Additional Stuff :

- Level Select screen - A level select screen is shown after the game launches displaying 5 levels where
    - Each level will have the monkey type effect first to learn the code
    - and in the same level the player has to type the same code without the monkey type effect
    - The contrast is shown by showing the ninja running in a night like background , (like google dinosaur game)

- The 5th level will be the whole code (all the levels) again having the same 2 sub - parts
    - First typing in monkey type and
    - The same code to be typed without monkey type

- Level Names :
    - Level 1 - Preprocessor
    - Level 2 - Main()
    - Level 3 - input
    - Level 4 - output
    - Level 5 - Final

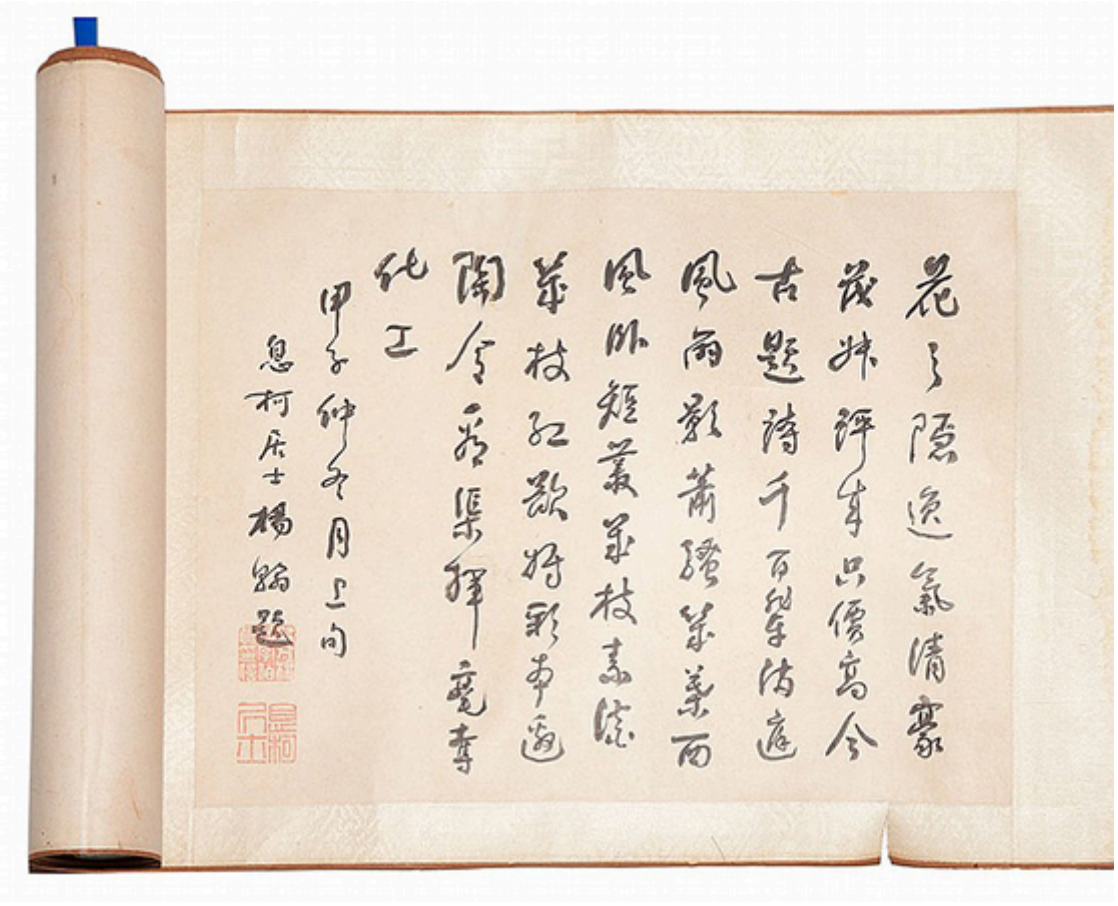


Tutorial - A tutorial of the game will be shown before level select is available

- The first level will be played and shown as the tutorial
- The 2 sections of the game is to be shown with arrows where :
    - dialogue box 1 is first displayed and the arrow points to the coding section
    - dialogue box 2 will then be displayed and an arrow will point to the the ninja
    - Dialogue box 3 appears after and an arrow will point to the ninja successfully dodging an obstacle after #include is typed

- For The final part of the tutorial dialogue Box 4 will be displayed and an arrow pointing to the ninja failing an obstacle by typing **<stdio.h>** wrongly as **<stdio.h** will be displayed
- Dialogue Box 5 is then displayed

- Dialogues -
  - Dialogue Box 1 - Welcome back, Samurai! The Master is expecting you. This is your **Code Scroll**, your only way to reach him. Write commands here to help the ninja **leap**, **duck**, and **dash** past dangers. The path ahead is perilous—let's begin
  - Dialogue Box 2 - Look! The ninja is on the move! The code scroll is active . The better your code, the smoother the ninja's journey. Stay sharp—obstacles are ahead!"
  - Dialogue Box 3 - see how the ninja has dodged the obstacle with precision. The code scroll is working! are swift and true! Keep it up—more challenges lie ahead
  - Dialogue Box 4 -**Attention** has always been Maters key rule, notice how The ninja stumbled?. But don't worry, mistakes are part of the journey. Refine your code and keep trying again
  - Dialogue box 5 - Alright Lets begin !!



Dialogue Box

Arrow Reference Image

FONTS -

TITLE -samurai

CODE - A_ASIAN_NINJA

TUTORIAL - Jansina

SFX

Typing - https://www.youtube.com/watch?v=EgRvVq8mStE&pp=ygURc2FtdXJhaSBzbGFzaCBzZng%3D as they type the words/ letters

Obstacle Dodging Sounds : https://youtu.be/qP3D8w7kdQE

Run sound: https://www.youtube.com/watch?v=2u9yz5SW_pk&pp=ygUNZ3Jhc3MgcnVuIHNmeA%3D%3D

Tutorial

TUTORIAL – CODE SCROLL

Opening Screen (after game launches) –

Dialogue Box - Welcome to Code Scroll, a journey where your typing skills guide a ninja through the trials of destiny. Follow this brief tutorial to get started!

1. An arrow points to a sample text to the left of the screen at the simple with text : a B 1 _

Dialogue Box – This is the code scroll , why don't you try typing what's shown on screen?

2. Right after that the whole screen pauses we point an arrow to show the ninja do a successful obstacle

Dialogue Box – Great job! This is our ninja. It's up to you to guide him to his destiny. Successfully type the given words to help him cross obstacles!

3. We then switch to night level for the same and point the arrow to the location of the text

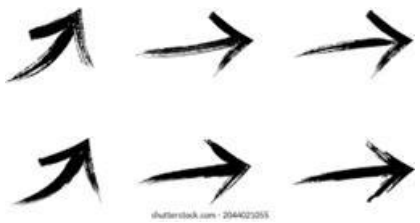
Dialogue Box – Oh no! the shadow realm is here ! the code scroll will not be visible now but it still works ! you just have to remember !

4. We then now come out to show the level select screen , an arrow points to the first level

    a. Dialogue box – Click on the levels to complete them. Finish all levels to complete the game!

Final Dialogue Box – The shadow realm awaits you , go and fulfil your destiny !

References :



Arrows

Dialogue Box