

Project Frog Puzzle

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How to operate our project

1. Open FrogPuzzle.c in CPULator or Intel Monitor Program

- Our project is combined into a single C file: FrogPuzzle.c
- CPULator: <https://cpulator.01xz.net/?sys=nios-de1soc>

2. Game Logic:

- This is a one player game.
- The goal is to swapped sides of the two sets of frogs. As pictures show below.



◦ Initial State

Win State

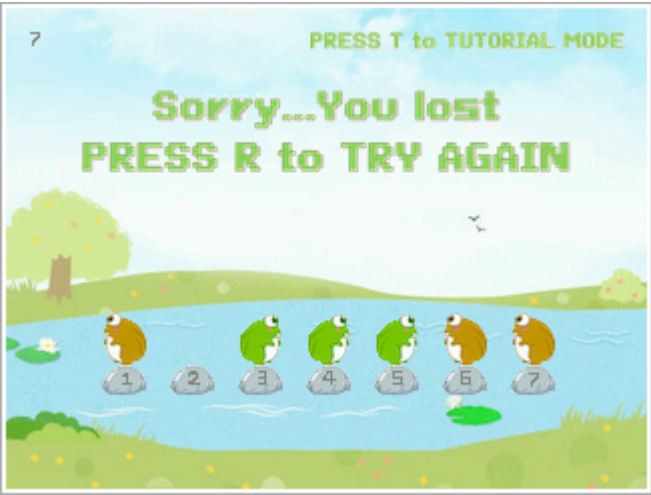


- A frog can move by jumping **forward** to an **adjacent** empty stone, or jumping **forward** and **over only one** frog.
- Player can control a numbered frog to jump by clicking on the corresponding PS/2 Keyboard alphanumeric keys.

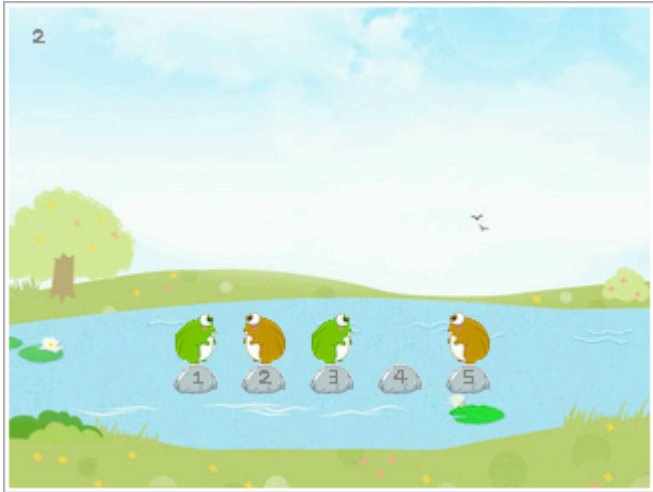
3. Features

1. Well-integrated **Audio** and Animation
2. Click R to reset the game **whenever** user thinks a mistake was made.

3. When user enter a state no move can be make, the game enters Lose Page.



- User can then Retry also by clicking R
 - Or Enter **Tutorial Mode** by clicking T
4. Tutorial mode
- Tutroial mode has **three** levels



- Level 1



- Level 3

- Player can go back to Play Mode by clicking Q after beating any level of Tutorial mode

Attribution Table

Jiahan William Wen:

Kexin (Alissa) Xiang:

Jiahan William Wen:**Kexin (Alissa) Xiang:**

- Build Game Logic in C using terminal I/O
- Convert .png to C array and draw Background
- Handle PS2 Keyboard (clear FIFO buffer)
- Convert .mp3 to C array and implemented Audio

- Draw static frog and labeled stones
- Restructured to Double Buffering
- Frog Jump Animation
- Display Messages for each game state
- Display move counts for each move