Technical Universty of Košice Department of Computers and Informatics

'Jump Over Space' – Problemset #6

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Assignment:

- Project contains 2D world

- Project meets at least 3 challenges

- Work with colors

- Keyboard control (no Enter needed)

- Multiple levels

- Work in time (in the time the program is changed)

Game logic description:

In this 2D platform game, player control a character navigating through various levels composed of platforms (lanes) and bonuses. The core gameplay revolves around the unique mechanic of gravity switching. Players use arrow keys for lateral movement across the platforms and press the spacebar to invert the direction of gravity, either rising or falling within the game frame.

Each level presents a series of static platforms, randomly generated in position and length, adding variety and challenge to each playthrough. The player's objective is to collect all bonuses scattered across the level. These bonuses are strategically placed, requiring careful movement and gravity manipulation to reach.

As the player moves and switches gravity, they must stay on the platforms. Falling off the platforms or hitting the top or bottom of the screen results in losing the game. Additionally, there's a time limit for each level, putting pressure on the player to move swiftly and efficiently. Collecting all bonuses before time runs out is the primary goal.
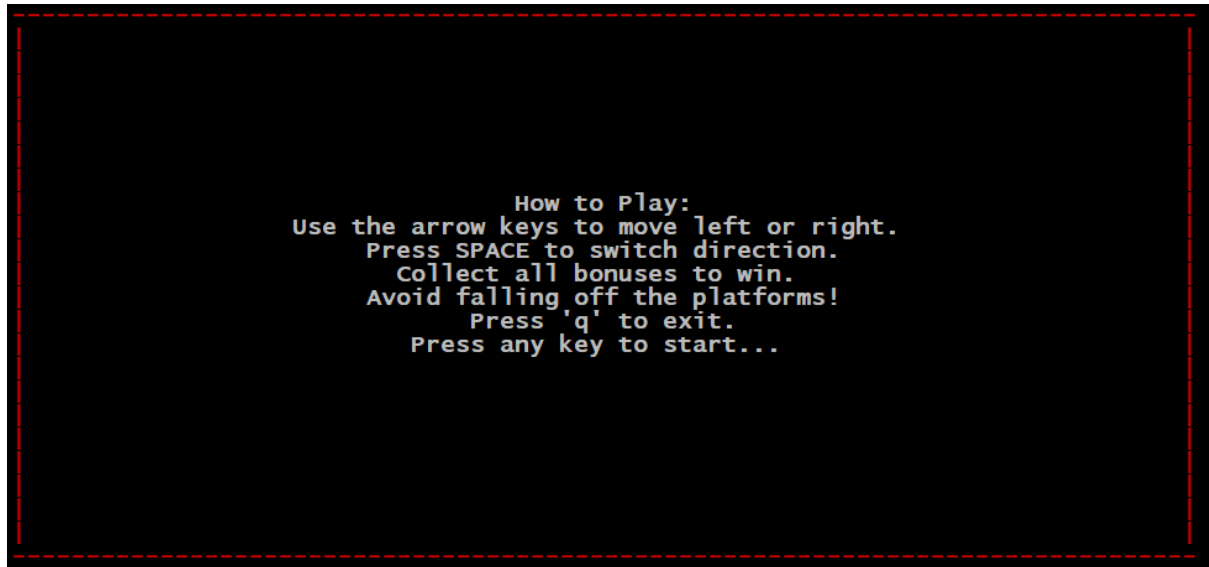
The game increases in complexity with each level, introducing more platforms and bonuses and thus requiring more precise control and strategy. The simple, terminal-based graphics focus the player's attention on the gameplay mechanics, making for an engaging and retro gaming experience. The game is as much about strategy and planning as it is about reflexes and quick reactions, providing a balanced challenge for a wide range of players.

Gameplay:

Players are greeted first by a title screen displaying the game's name and instructions, followed by a menu screen where they can choose from three levels or exit the game. Once a level is selected, players enter the gameplay screen, where they control a character in a 2D space, navigating through platforms to collect bonuses while avoiding falling off. The gameplay involves moving horizontally with arrow keys and altering gravity with the spacebar. The screen also displays a countdown timer, adding urgency to the gameplay. If the player succeeds in collecting all bonuses within the time limit, they are presented with a celebratory winner screen; otherwise, a game-over screen appears.

Screens:

LOADING OF GAME

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                        How to Play:
          Use the arrow keys to move left or right.
              Press SPACE to switch direction.
                Collect all bonuses to win.
                Avoid falling off the platforms!
                    Press 'q' to exit.
                Press any key to start...
```

MENU

```
                   Welcome to the Game Menu
```
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                        Play Level 1

                        Play Level 2

                        Play Level 3

                        Quit Game
```

GAME

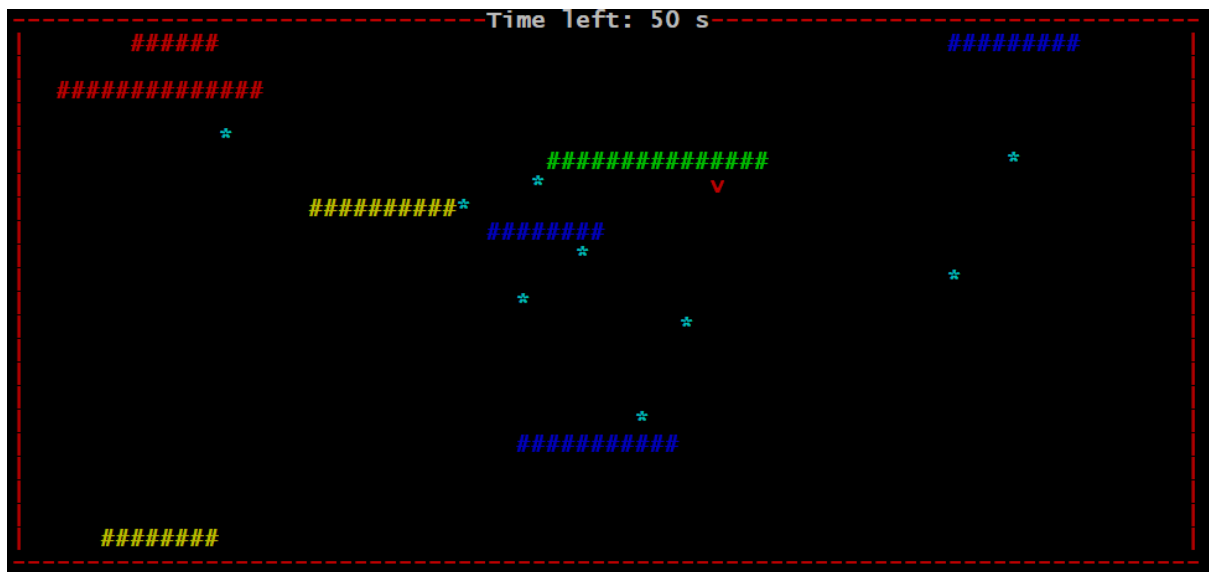## Control keys:

- **LEFT** – Move Left

- **RIGHT** – Move right

- **SPACE** – Change direction