

Technical University of Košice
Department of Computers and Informatics

PROBLEM SET 6
SPEED RACER

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Assignment

Using the ncurses library, create a program (game, presentation or other artistic work), with the following minimal requirements:

- Project contains 2D world.
- Project meets at least 3 challenges:
 - Work with colors
 - Keyboard control (no Enter needed)
 - Multiply levels
 - Work in time (in the time the program is changed)
 - Work with command-line arguments
 - Work with files
- Project must be more complicated than the sample programs, with an adequate level of difficulty

Game Logic

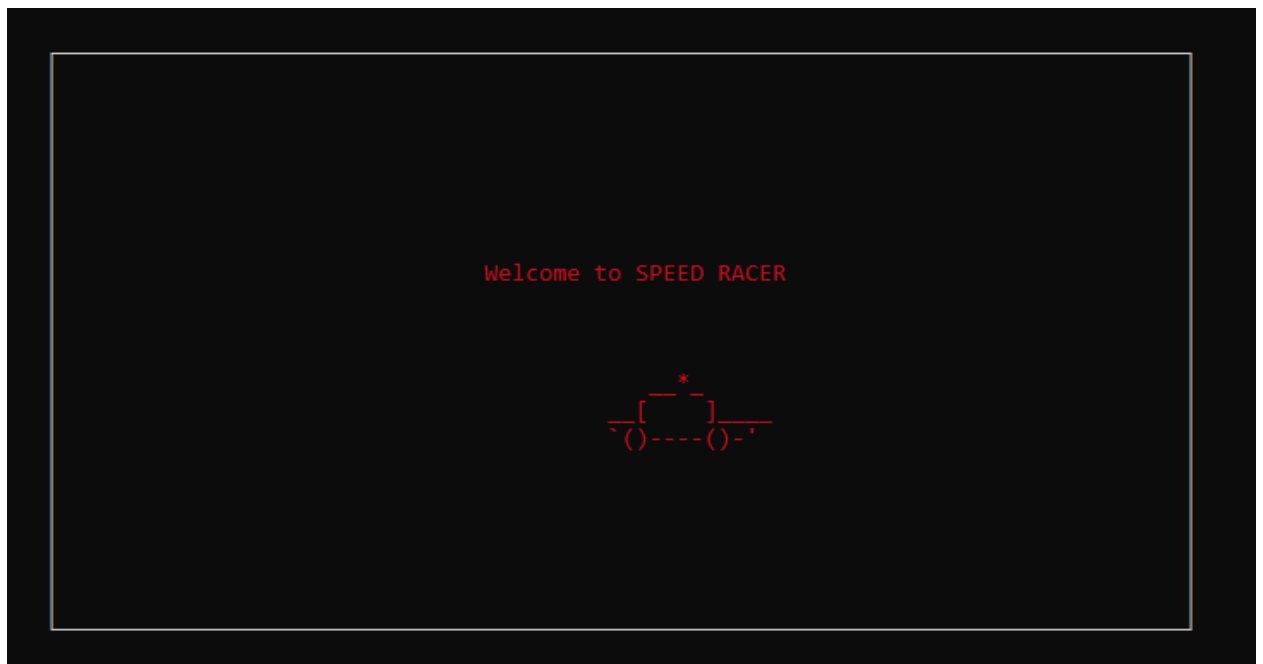
The game consists 6 functions:

- void start();
- void login_page (char *name);
- int game_core(char *name, int score, int *last_score, int *high_score, int maxY, int maxX);
- int random_number (int maxX);
- int speed(int score);
- int end_game(char *name, int *last_score, int *high_score, int maxY, int maxX);
- int pause (char *name, int score, int maxX, int maxY);

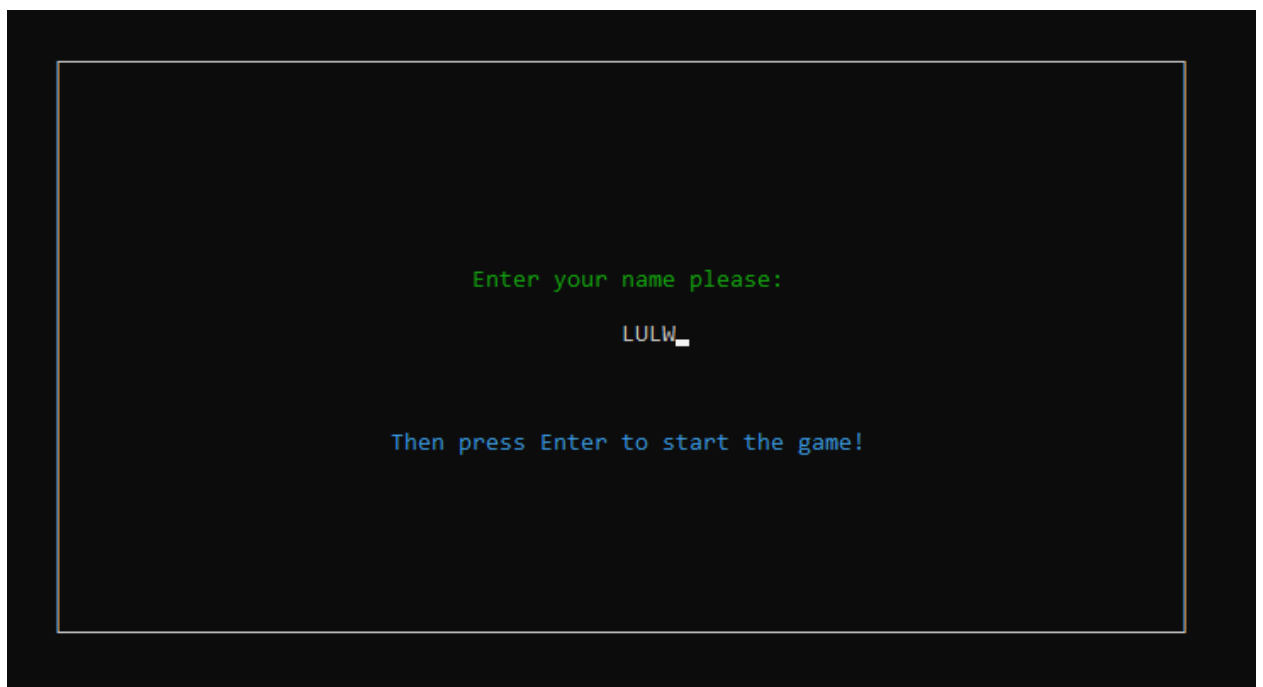
Game play

The game is coded in program.c file. The game is presented as an improved version of the well-known races from Tetris. in contrast to the standard version of the game, mine has 3 stripes for better moneuvering during the race. Also the speed of the car increases with time (and not as in the original, with the choice of the level). the advantage of my game is better skins are drawn on cars

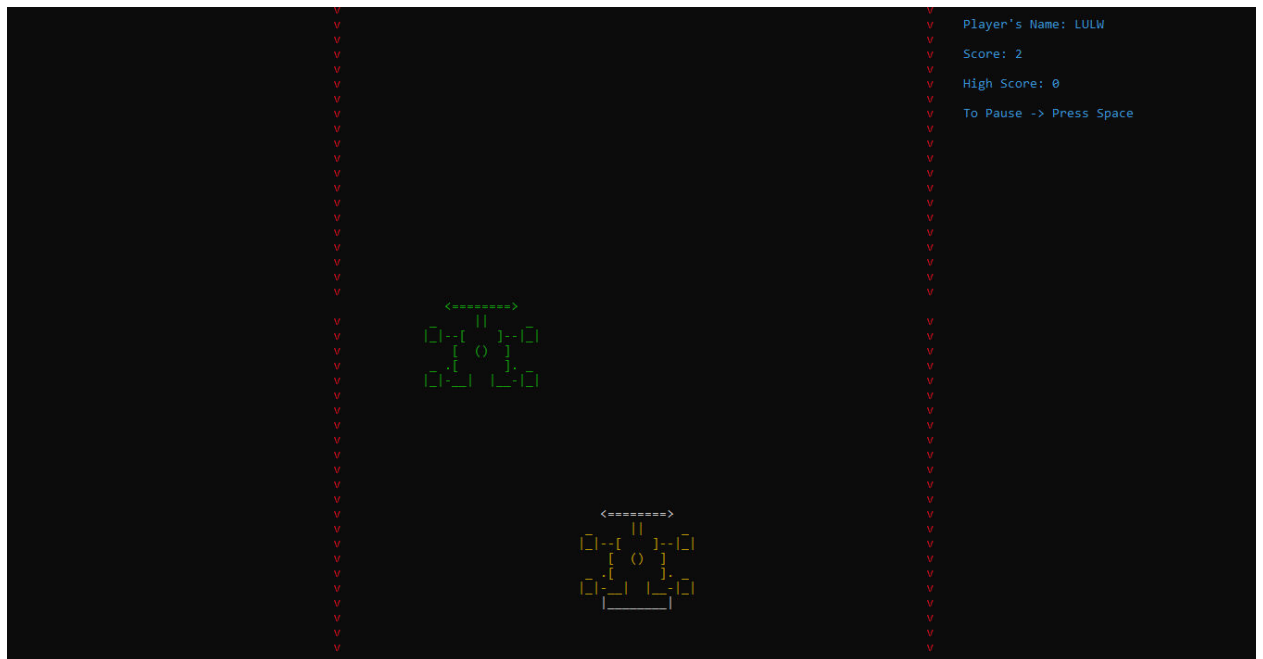
When starting the project, we see the loading screen. On it, the car denotes the loading line.



After loading you are greeted with an authorization window. You need to specify a name in it. A personal record will be attached to him in the future.



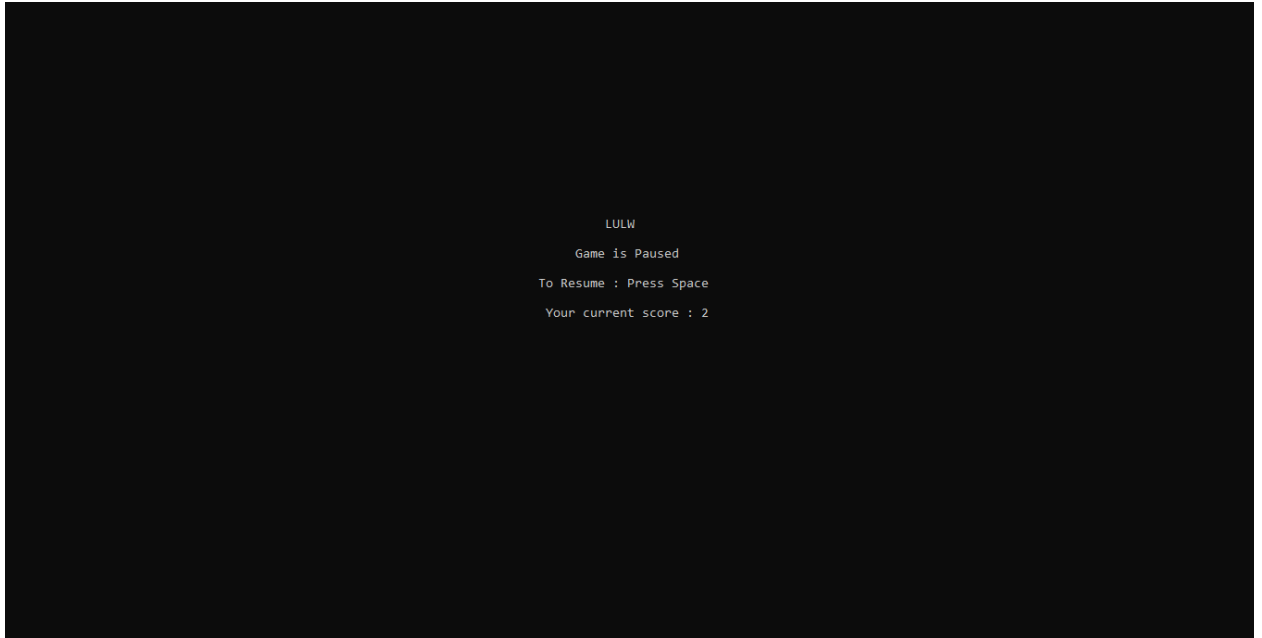
After entering the name and pressing enter, the game starts. The main rule of the game is to drive without collisions with the opponent's car. Over time, the speed of the car increases, which makes the game more difficult.



On the right side of the screen you can see the player's name, current score, best score and navigation for pause. In the middle there is a playing field. To control the car, you can use both the arrows on the keyboard and the letters A D (regardless of case). Enemies are always green

Pause

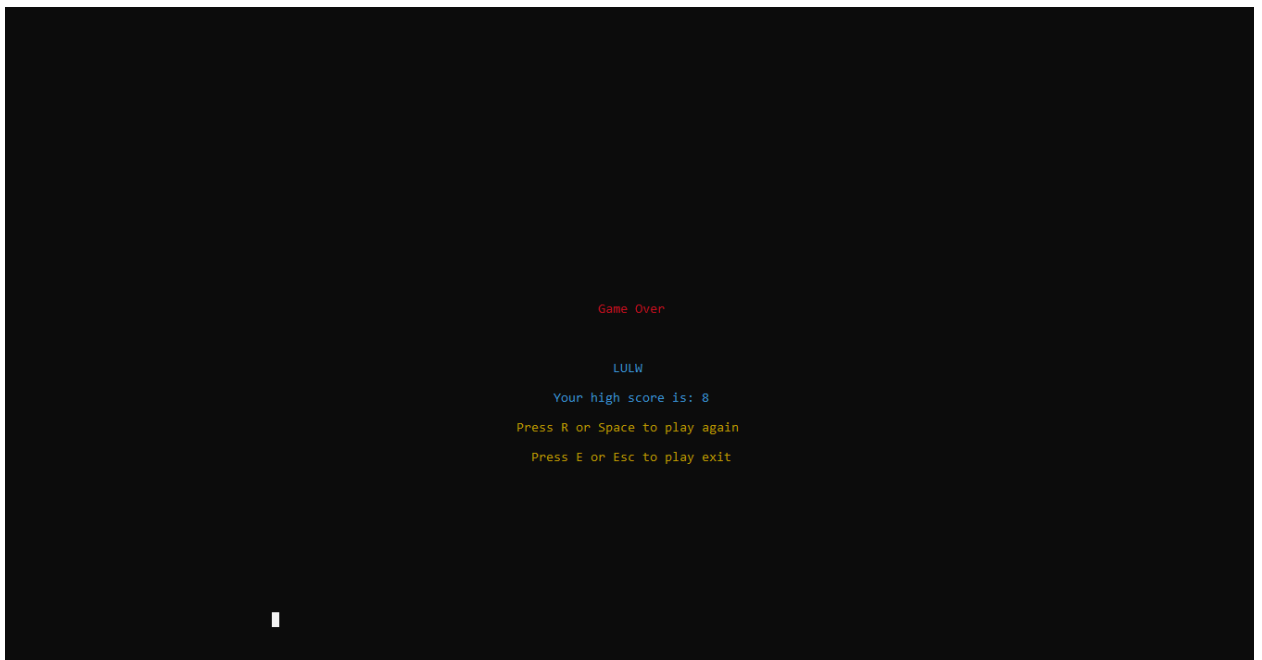
The game has a pause mechanic. At any time, the game can be stopped by pressing the space bar. The pause screen shows your name, your current score and alerts for navigation



To continue the game from the same place, you just need to press the space bar.

End game

When you collide with an enemy car, the game ends and you see such a screen.



It shows your name, result, and navigation buttons. If your result is greater than the best result, then it becomes the best.

To finish playing you need to press ESC or the letter E (case-insensitive). To continue the game, you need to press the SPACEBAR or the letter P (case-insensitive).

Conclusion

This game is a kind of nostalgia for the game from Tetris. It is interesting for its improved concept.

You only need to play fullscreen, otherwise some objects will not fit.

The game could add a variety of skins for cars (both on your own and on your opponents). I did not find any bugs in the game.