CS/MR Digital platforms 2022/23

Co-design Group Project

"Frogger"

Notes

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Technical specifications

1. Make a high resolution display using sub-displays.
2. Make the display multicolored using substring matrices. Also, render players with another color from entities.
3. Use a coordinate system of the game field where every entity has its own position.
4. Build a computer which updates entities' coordinates every tact and moves them.
5. Create intersector computers which take coordinates of an enemy and a player and return if the frog has died.
6. Develop blocks which can render all objects on the map.
7. Make a keyboard module which keeps toad's coordinates and changes them using data from the keyboard.
8. Make statistics that show elapsed time, the number of remaining lives, the number of saved frogs, as well as current and record score. The images should be large. Add a time bar.
9. Process three events, which are a bump, a rescue, and a good jump of a frog. Depending on the case, it is necessary to add or subtract points from the current score, as well as to update the number of saved frogs and the number of remaining lives.
10. Add difficulty levels to the game. It should increase with each saved frog. If the level is increased, the speed of objects on the playing field and the flow of time increase.
11. Add a final scene of the game. All action in the background should slow down, and control of the frog should become impossible.