

My idea:

For my final project, I plan to create a functioning version of Space Invaders from scratch. Utilizing various skills from my "Inventory," I will strive not only to implement all mechanics from the original game but also to introduce something new.

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Inventory skills:

1. I will use shapes to draw all objects.
2. All commands in this section are needed to improve the appearance.
3. Commands from this list will facilitate the creation of objects.
4. Setup() and draw()
5. Background() for the background and Random() to create stars on it.
6. Constrain() to limit player movements.
7. Player Movement
8. I will use these operators for player movement.
9. Player starter position
10. Enemies + Player variables
11. Instruction how to play
12. Checking whether a player has lost or won
13. Checking whether enemies have reached the bottom of the screen
14. Checking whether enemies go beyond the edges of the screen (right and left)
15. Switch statements will be used to allow the player to change the game's color palette.
16. I use loops for enemy movement (i++)
17. A nested loop will be used to create a semi-transparent grid in the background.
18. Exit switch statement
- 19.
20. Displaying the Start Screen
21. Player Lives Display, которые будут изменяться при проигрыше
- 22.
23. Class for number of points
24. Class for the player's ship and opponents
- 25.
- 26.
- 27.
28. Player ship movement and starting position
29. Generation of enemy ships
30. Enemy ships and player ship
- 31.
- 32.
33. Creation of passing comets in the background
34. Creating lines of enemy ships
35. Creating lines of enemy ships

- 36. Destroying a ship after two hits
- 37.
- 38. I will use vectors for projectiles.
- 39. I will use physics for the flight of projectiles.
- 40. ??? (I'm not sure what we need to do here)
- 41. I will use a random 2D vector for particles from the player's engine during movement.
- 42.
- 43. I will use the dist() method to calculate distance.

Milestones:

- 1. At this point I will make the start menu and everything related to the visual component
Skills that will be used: 1, 2, 3, 4, 5, 9, 10, 11, 15, 18, 20, 30, 33.
- 2. By the second week I will make controls for the player's ship as well as opponents, who, upon reaching the bottom of the screen, return to their original position, taking away the player's life
Skills that will be used: 6, 7, 8, 12, 13, 14, 16, 17, 21, 24, 28, 29, 34, 35
- 3. In the third week I will finish programming the shooting, win conditions and also add the score.
Skills that will be used: 23, 36, 38, 39, 41, 40(?), 43