



Space Defenders" computer game

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Prerequisites before starting the game

The user must have Python version 3.9 or higher installed and the Pygame package (version 2.1.2 or higher).

The rules of the game

The aim of the game is to destroy an army of aliens. Initially, an army appears on a 500x500 pixel window, which consists of 8 rows of 11 aliens in each row. There is also a rocket at the bottom of the screen that can shoot at the aliens. Once all the aliens from the first "invasion" are destroyed, a new army appears. There are 3 types of aliens:



1st type



Type 2



Type 3

When each type of alien is destroyed, the player receives 10 points. However, when destroying the 2nd type of alien the player receives a Mega Gun bonus, and when destroying the 3rd type of alien the player receives a

"Extra Life.

Initially the player has 1 life in reserve. If the missile collides with an alien, the player is considered to have lost the battle and 1 life is taken away, and the alien army is formed anew.

However, when receiving a bonus

The "Extra Life" increases the player's life by 1. The maximum number of lives a player can have is 5.

The rocket can fire bullets at the aliens. The rocket emits 1 bullet per press of the space bar.

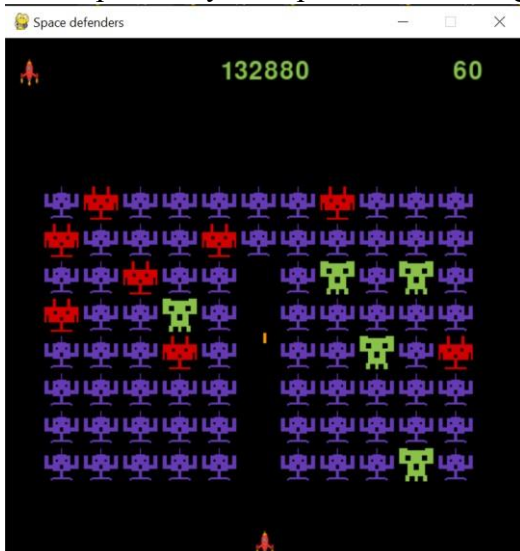
However, when receiving the "Mega Gun" bonus, the number of bullets emitted by the rocket at 1 time is increased by 2. The maximum number of bullets a missile can emit is 5 (i.e. either 1, 3 or 5).

Controls

The "A" key is responsible for moving the rocket to the left. If this key is pressed, the missile can move continuously to the left until the end of the game screen.

The "D" key is responsible for moving the rocket to the right. When this key is pressed, the rocket can move continuously to the right until the end of the game screen.

The "Space" key is responsible for firing the missile. One press of the key is one shot.



Game interface

The top left corner of the screen displays the number of lives the player has on the at the moment. The top center displays the record ever set by the player. To the right in the middle the current score is displayed.

End game

The game is considered over if a) the player left the game by himself; b) the player ran out of lives; c) the player passed 5 rounds of alien invasion. If at the end of the game the player's score has exceeded his record, he is recorded and

is displayed as a record on further runs of the game.