


National University of Computer and Emerging Sciences, Lahore Campus				
	Course Name:	Programming Fundamentals	Submission date	
	Project		Total Marks	
	Section	BDS-1B & BDS-1D	Weight	

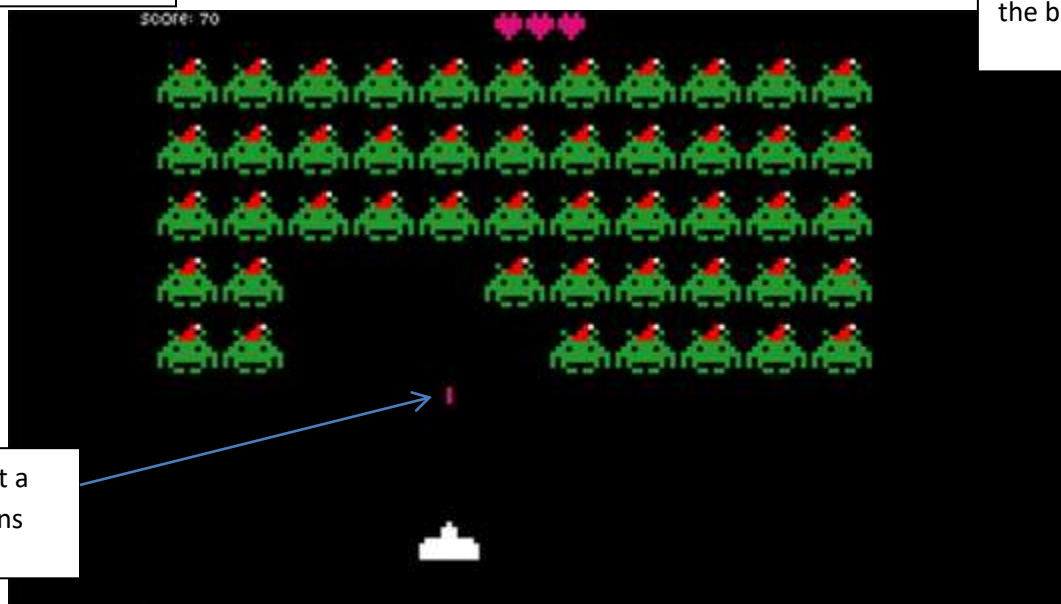
SPACE INVADERS GAME

Space invaders is the classic retro shooting game in which a player has to out maneuver and shoot down a hoard of incoming aliens before they take over the earth. You can play it at this link <http://www.freeinvaders.org/> (requires flash player). You have to design and implement a new version of this game with the minimum functionalities that are described below.

Score must be maintained and displayed

Player Lives need to be maintained and displayed

A grid of aliens that must move side to side and gradually move down to the bottom of the screen.



The player can shoot a bullet to kill the aliens

A player that can move up, down, left and right

In addition to the above features your game must also:

- Have a pause feature (for eg: by pressing ESC or pressing P) which will pause the game until the key is pressed again.
- A save state feature such that you can close the game and resume it at a later time. This will involve saving data into a txt file and then later retrieving it.
- A high-score feature. Your game must maintain a record of the 5 highest scores.

Additional Notes:

- The player must move in all 4 directions (UP, DOWN, LEFT, RIGHT). Not just side to side.
- The player's life must decrease if it collides with an alien. If the lives drop to zero, the game is over.
- Alternatively if even one alien reaches the bottom of the screen the game is over.
- The aliens must be destroyed if it collides with the bullet. The bullet must also disappear if it collides or reaches the top of the screen.
- If all the aliens are killed, the game is over and the player has won.
- You can choose to have only one bullet on the screen at the time.
- The objects on the screen (player, aliens, bullet) can be simple shapes (squares, rectangles, triangles), but to try to differentiate between these objects by using different colors or shapes.
- You can have your own choice of key bindings for controlling the game (eg: using WASD or using arrow keys)

Any additional features that you implement to improve the gameplay or the look of the game will be considered positively during your project evaluation. So strive to make your game unique and enjoyable.