1. First, open the program and it will be shown as below:

```
|>>>>>>>>>>>>>>>>>AvsZ<<<<<<<<<<<<<<<<<<|
|                                      |
<-------Welcome to Alien Vs Zombie------->
|                                      |
|>>>>>>>>>>>>>>>>>__<<<<<<<<<<<<<<<<<<|

Press Enter To Continue . . . .
```
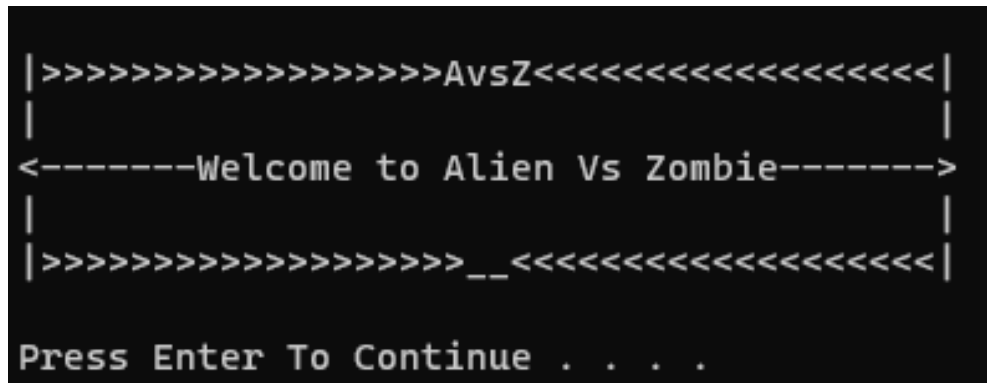
2. After that, press Enter to continue and default game settings will be shown.
the game default setting is shown as image below. User also have an option whether the user want to change the setting. Press 'y' for yes and 'n' for no.

```
Press Enter To Continue . . . .
--------------------
Default game setting
--------------------
Rows => 7
Columns => 7
Zombie => 5
Do you want to change the settings (y or n)?=>
```
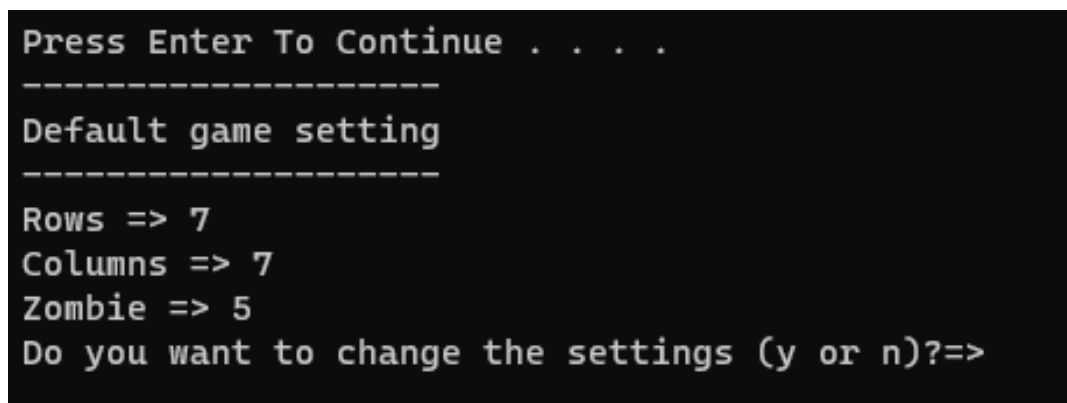
3. If user chose 'y', user must input custom rows, columns and zombies. Note that only odd number that larger than 1 rows and columns accepted. The number of zombies must not more than 8.

```
Do you want to change the settings (y or n)?=> y

------------------------------------------
Please enter the odd number that larger than 1 for row and column that prefered!!!
Please enter numbers of zombie less than 8 !!!
------------------------------------------
Number of row => 7
Number of column => 5
Number of zombie => 2
```

4. If user chose 'n', the rows and columns with default settings will be shown.

```
Rows => 7
Columns => 7
Zombie => 5
Do you want to change the settings (y or n)?=> n

    +-+-+-+-+-+-+-+
  1 |h|r|h|^| |r| |
    +-+-+-+-+-+-+-+
  2 | |v|r|4|v|3|p|
    +-+-+-+-+-+-+-+
  3 |>|<|2|p|p|h| |
    +-+-+-+-+-+-+-+
  4 |v|v|1|A| | |5|
    +-+-+-+-+-+-+-+
  5 |r|>|^|p|p| |^|
    +-+-+-+-+-+-+-+
  6 | |<|<|h|v|r|p|
    +-+-+-+-+-+-+-+
  7 |^|h|<|h|<|p|<|
    +-+-+-+-+-+-+-+
     0 0 0 0 0 0 0
     1 2 3 4 5 6 7
```

5. Then a gameboard based on rows and columns chose by user will be shown. All alien and zombies attributes will also appear as picture below:

```
Rows => 7
Columns => 7
Zombie => 5
Do you want to change the settings (y or n)?=> n

    +-+-+-+-+-+-+-+
  1 |h|r|h|^| |r| |
    +-+-+-+-+-+-+-+
  2 | |v|r|4|v|3|p|
    +-+-+-+-+-+-+-+
  3 |>|<|2|p|p|h| |
    +-+-+-+-+-+-+-+
  4 |v|v|1|A| | |5|
    +-+-+-+-+-+-+-+
  5 |r|>|^|p|p| |^|
    +-+-+-+-+-+-+-+
  6 | |<|<|h|v|r|p|
    +-+-+-+-+-+-+-+
  7 |^|h|<|h|<|p|<|
    +-+-+-+-+-+-+-+
     0 0 0 0 0 0 0
     1 2 3 4 5 6 7


----------------------------------------------
Alien:      Life=> 100   Attack=> 0
Zombie1:  Life=> 282    Attack=> 18     Range=> 4
Zombie2:  Life=> 238    Attack=> 11     Range=> 4
Zombie3:  Life=> 296    Attack=> 17     Range=> 4
Zombie4:  Life=> 293    Attack=> 5      Range=> 1
Zombie5:  Life=> 109    Attack=> 7      Range=> 4
----------------------------------------------
----------------------------------------------
Please enter command => |
```

6. User required to put commands to play the game. to help the user with all the commands, user can type help in the command section. then all of the commands to play the game will appear. Press Enter to get back to the command section.

```
----------------------------------------------------
Please enter command => help
----------------------
Command
--------
1) up => Move up
2) down => Move down
3) left => Move left
4) right => Move right
5) arrow => Change any arrow's direction
6) help => Show the user's command
7) save => Save the game
8) load => Load the game
9) quit => Quit the game
----------------------
Please enter to continue...
```

7. For alien movement, there are commands 'up', 'down', 'right', 'left' which will move the alien to the intended direction. For example here we move the alien to the right using 'right' command.

```
-----------------------------------------------------
Please enter command => right

   +-+-+-+-+-+-+-+
 1 |h|r|h|^| |r| |
   +-+-+-+-+-+-+-+
 2 | |v|r|4|v|3|p|
   +-+-+-+-+-+-+-+
 3 |>|<|2|p|p|h| |
   +-+-+-+-+-+-+-+
 4 |v|v|1|.|A| |5|
   +-+-+-+-+-+-+-+
 5 |r|>|^|p|p| |^|
   +-+-+-+-+-+-+-+
 6 | |<|<|h|v|r|p|
   +-+-+-+-+-+-+-+
 7 |^|h|<|h|<|p|<|
   +-+-+-+-+-+-+-+
    0 0 0 0 0 0 0
    1 2 3 4 5 6 7
-----------------------------------------------------
Alien:       Life=> 100   Attack=> 0
Zombie1:  Life=> 282   Attack=> 18    Range=> 4
Zombie2:  Life=> 238   Attack=> 11    Range=> 4
Zombie3:  Life=> 296   Attack=> 17    Range=> 4
Zombie4:  Life=> 293   Attack=> 5     Range=> 1
Zombie5:  Life=> 109   Attack=> 7     Range=> 4
-----------------------------------------------------
```

8. After that zombies will have their own turn. We don't need to move the zombie because we only play as the alien.

```
------------------------------
Zombie 1 turn

Zombie 1 turn end
-----------------------------------------------------
Please enter command =>
```

9. Then user can start playing the game as they intended.

10. For command 'arrow', user can switch the direction of an arrow object in the game board. User will be asked to enter the row and column of the arrow object to switch, followed by the direction of the arrow object to switch to. For example, in row 7 column 7, the direction is up (<). We will change the direction to down (^)

```
Please enter command => arrow
-----------------------------------------------------------------
Please enter the row,column and direction(up,down,left,right)=>7 7 up

The arrow is <
The arrow after changes is ^
Please enter to continue...


    +-+-+-+-+-+-+-+
 1 |h|r|h|^| |r| |
    +-+-+-+-+-+-+-+
 2 | |v|r|4|v|3|p|
    +-+-+-+-+-+-+-+
 3 |>|<|2|p|p|h| |
    +-+-+-+-+-+-+-+
 4 |v|v|1| |A| |5|
    +-+-+-+-+-+-+-+
 5 |r|>|^|p|p| |^|
    +-+-+-+-+-+-+-+
 6 | |<|<|h|v|r|p|
    +-+-+-+-+-+-+-+
 7 |^|h|<|h|<|p|^|
    +-+-+-+-+-+-+-+
    0 0 0 0 0 0 0
    1 2 3 4 5 6 7
-----------------------------------------------------
Alien:     Life=> 100   Attack=> 0
Zombie1:  Life=> 282    Attack=> 18     Range=> 4
Zombie2:  Life=> 238    Attack=> 11     Range=> 4
Zombie3:  Life=> 296    Attack=> 17     Range=> 4
Zombie4:  Life=> 293    Attack=> 5      Range=> 1
Zombie5:  Life=> 109    Attack=> 7      Range=> 4
-----------------------------------------------


-----------------------------------------------
Please enter command =>
```

11. The zombie's and alien's turns take place until all zombies or the alien dies. Which the game will end.

12. For each objects in the board, the objects has its own function as shown below.

Name	Appearance	Description
Arrow	^ (up), v (down), < (left), > (right)	• Changes Alien's direction of movement. • Adds 20 attack to Alien.
Health	h	• Adds 20 life to Alien.
Pod	p	• Instantly inflicts 10 damage to Zombie when hit by Alien.
Rock	r	• Hides a game object (except Rock and Trail) beneath it. • Reveals the hidden game object when hit by Alien. • Stops the Alien from moving.
Empty	Space	• Just an empty space on the board.
Trail	.	• Left by Alien when it moves. • Reset to a random game object (except the Trail) after Alien's turn ends.

13. User can also save their current game by using command 'save' and user is required to name the file to store all the user's game data.

```
--------------------------------------------------
Please enter command => save
Enter the file name to save the current game => codingfun
----------------------
Game saved successfully
----------------------
Please enter to continue...
```

14. User can also load their saved game by using command 'load'

```
----------------------------------------------------
Please enter command => load
Enter the file name to load => codingfun
-----------------------
Game loaded successfully
-----------------------
Please enter to continue...
```

15. To quit the game, user can type 'quit' command and user will exit from the game instantly.

```
----------------------------------------------------
Please enter command => exit
```