



## *Final FOP Project*

Matin Amirpanah far\*  
student NO:40212358003

Nima Makhmali†  
student NO:40212358035

February 21, 2024

---

\*email: [matin.a0789@gmail.com](mailto:matin.a0789@gmail.com)

†email: [nmkhmly790@gmail.com](mailto:nmkhmly790@gmail.com)

# Contents

<b>I</b>	<b>Introducing the game</b>	<b>3</b>
1	How to Play	3
2	Errors and Warnings	3
<b>II</b>	<b>Code description</b>	<b>4</b>
1	libraries	4
1.1	iostream . . . . .	4
1.2	stdlib.h . . . . .	4
1.3	ctime . . . . .	4
1.4	fstream . . . . .	4
1.5	vector . . . . .	4
2	Defines	4
3	Structures	4
4	Functions	4
4.1	main . . . . .	4
4.2	granddraw . . . . .	5
4.3	horizontalLineDraw . . . . .	5
4.4	menu . . . . .	5
4.5	newGame . . . . .	5
4.6	gameSetting . . . . .	5
4.7	move . . . . .	5
4.8	shoot . . . . .	5
4.9	save . . . . .	5
4.10	load . . . . .	5
<b>III</b>	<b>links and references</b>	<b>6</b>
1	Links	6
2	References	6

## Part I

# Introducing the game

## 1 How to Play

This game which we have typed the code, when we start it, it prints a menu on the page for the user, and by clicking the start of the program, it asks the user to enter a number for the number of rows and columns of the game page, and then the game page is printed, which is a The ship is on the last line of this page

## 2 Errors and Warnings

## Part II

# Code description

### 1 libraries

We have used the following libraries in this code

#### 1.1 `iostream`

#### 1.2 `stdlib.h`

#### 1.3 `ctime`

#### 1.4 `fstream`

#### 1.5 `vector`

### 2 Defines

In this code, we have used defines for colors such as blue, green, black, etc., to color and also to bold our output text, whose ascii codes we have obtained by searching the internet, which of course We also used it in the mini project and we have also put 4 defines for the keys of our game in the code.

### 3 Structures

We have used an enum and three structures in this code

### 4 Functions

Our code functions are as follows

#### 4.1 `main`

This function is actually our main function, and first it calls the menu function, then it checks the condition of the heal of the ship, whether the heal of the spaceship is more than 0 or not. Another task of this function is to print the checkerboard of the game, which calls the grandDraw function Then it

does the work of moving the enemies and the spaceship and saving the game information.

## **4.2 granddraw**

This function has the task of printing the game page, if we select newGame in the menu, it first takes a number from the user and prints the number of rows and columns equal to that number. At the top of the game page, we have the name of the game, Final Fight, and the heal ship, in this function, we call the horizontalLineDraw function to print the lines.

## **4.3 horizontalLineDraw**

## **4.4 menu**

Our menu function, what it displays, consists of four sections, which we first use a do while loop to display once, and then according to the definitions at the top of the code using the ascii code, the up and down buttons and left and we have defined correctly, we can choose the options, by selecting any of the options, we will enter the switch and case section of this function, each of which applies commands

## **4.5 newGame**

## **4.6 gameSetting**

## **4.7 move**

## **4.8 shoot**

## **4.9 save**

## **4.10 load**

## Part III

# links and references

### 1 Links

project's GitHub link

<https://github.com/Matin0789/FinalFight.git>

### 2 References