README
Group - 28

TEAM MEMBERS AND THEIR CONTRIBUTIONS-

1. Rachit Agrawal (IMT2020018) - Created the main player object and implemented the mechanism for the movement of the player along with creating the bullets for the player and implementing the shooting mechanism.
2. Arin Awasthi (IMT2020081) - Created the main window, base classes - game, game_object (base class for obstacles, player, etc), and texture_manager. Implemented the looping background and displayed the current time score and ammo.
3. Agastya Thoppur (IMT2020528) - Wrote the code for maths operations on player ammunition. Created the moving rectangles that display the operations that the player must choose from, and also wrote code to update player ammunition as the player collides with a rectangle.
4. B Sathiya Naraayanan(IMT2020534)-Created the main screen which has the start game, high scorers (leaderboard), and instructions buttons. Start game takes to game window. Highscore prints top 5 scorers with their score. Instructions display the instructions. Once the game is over, a game over the window , which displays the final score, pops and gets the username and saves it with the score in a text file.
5. Harshadeep Donapati (IMT2020085) Wrote the code for spawning obstacles at random window heights, collision detection between obstacles and player, bullet and obstacle, playing a sound when a player hits the obstacle, and Makefile.

FEATURES OF THE GAME-

This is a 2-dimensional shooting game, where the player is constantly moving towards the positive x-direction and can control its movement along the y-direction. The game runs indefinitely until the player hits an obstacle or runs out of ammunition. After random intervals of time, the player gets to decide the amount of ammo he can get by choosing the optimal path. For example, a

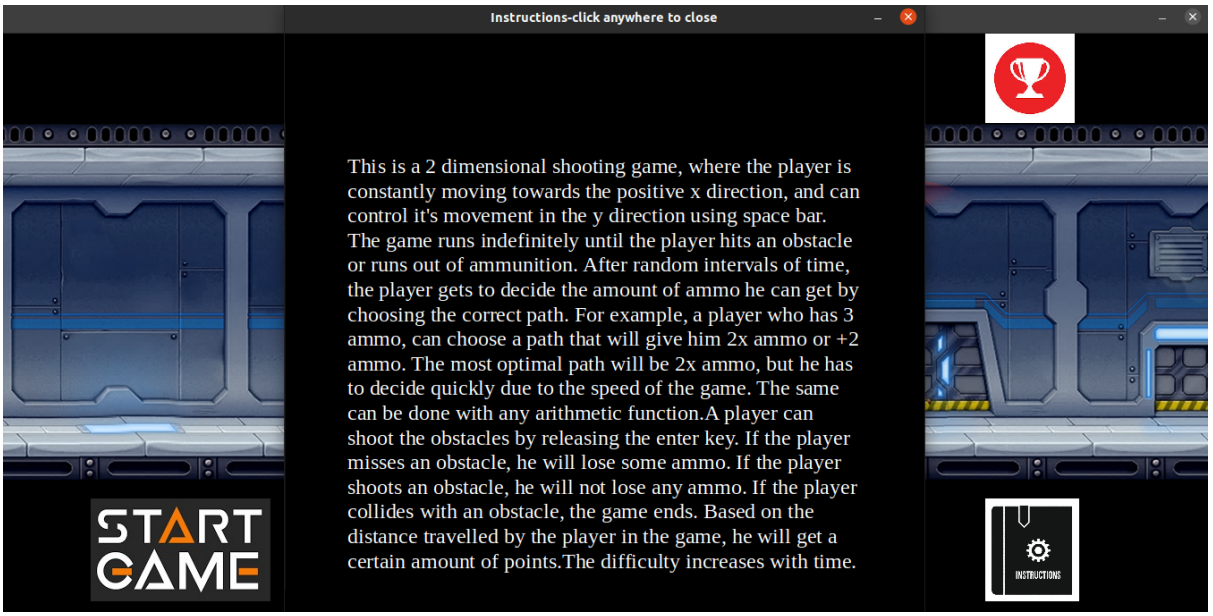
player who has 3 ammo, can choose a path that will give him 2x ammo or +2 ammo. The most optimal path will be 2x ammo, but he has to decide quickly due to the speed of the game. The same can be done with any arithmetic function. If the player misses an obstacle, he will lose some ammo. If the player collides with an obstacle, the game ends. Based on the distance travelled by the player in the game, he will get a certain amount of points. The difficulty of the game increases with time.

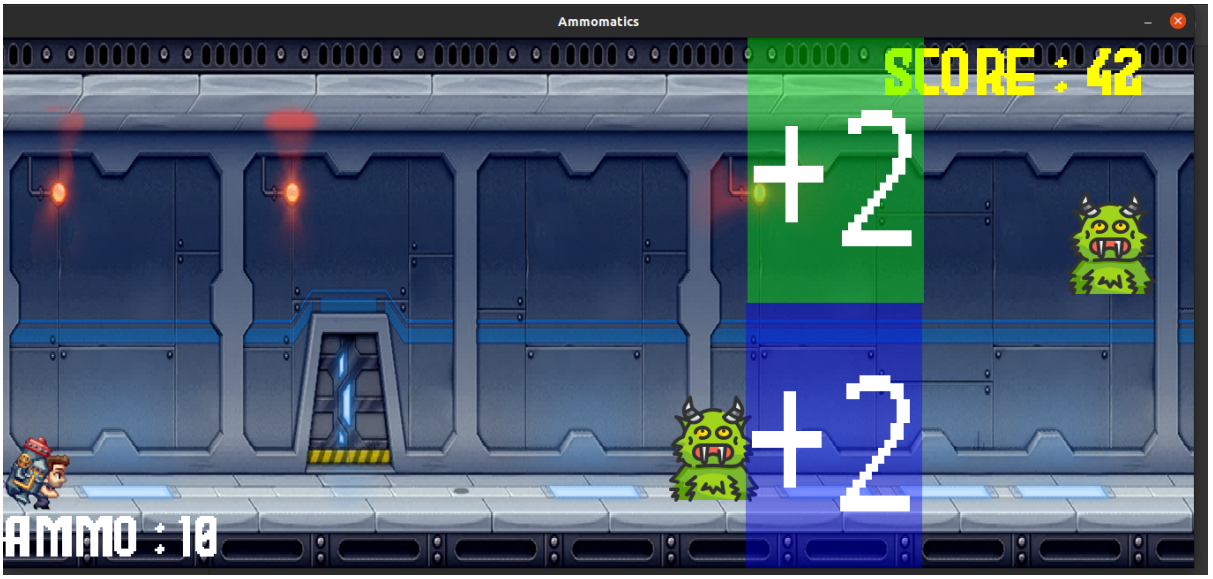
INSTRUCTIONS TO RUN THE GAME-

Open your terminal, open the game directory and type command "make" and enter. The Homescreen has three buttons,If highscore is pressed,it prints the Leaderboard on the terminal.If instruction button is clicked,it pops the instruction window which has the instruction for the game.The start game button starts the game.Once the game is over, another window by the name Gameover pops up.Then, type your username and close the window.The username will be printed on the terminal and it gets saved in the .txt file.

SCREENSHOTS-

```
born2win685@sathiya:~/Documents/CPP-Project-SDL2--main$ ./a.out
Ammomatics-LeaderBoard
q22222222 2809
sathiya3 605
last_2 380
qqqqq1 305
rthjklkjhg 280
_
```





CONTROLS OF THE GAME-

- The player needs to hold the spacebar key for the player to move upwards and release the spacebar for the player to move downwards.

- The player needs to hit the enter key for the player to shoot bullets. The bullet will shoot when the player releases the enter key.

GITHUB REPOSITORY-

https://github.com/rachit3006/CPP-Project-SDL2-