

Battle Blitz



Session: 2024 – 2028

Submitted by:

Rabbia Chaudhary 2024-CS-20

Supervised by:

Dr. Awais Hassan

Course:

CSC-102 Programming Fundamentals

Department of Computer Science

University of Engineering and Technology

Lahore Pakistan

Short Description of Battle Blitz

In the distant future, Earth is on the verge of annihilation. A powerful rogue force has taken control of a fleet of advanced warships, threatening to wipe out humanity. After years of relentless battles, Earth's defenses are depleted, leaving only one hope: an advanced prototype aircraft, armed with experimental technology and unmatched speed.

You are humanity's last pilot, chosen for a critical mission to infiltrate the enemy armada and strike at its core. The path ahead is treacherous, filled with enemy ships, dangerous obstacles, and relentless attacks. With skill, determination, and the power of your aircraft, you must fight for Earth's survival and secure a future for humanity.

Game Characters Description

Player

The player controls a single advanced aircraft, the Blitzfighter, the main character of the game. Designed for high-stakes combat, this plane is humanity's last hope in the battle against an overwhelming enemy fleet. Armed with powerful weapons, the Blitzfighter's mission is to eliminate the enemy planes while skillfully dodging their attacks and avoiding self-inflicted damage. Victory in this intense aerial war will secure Earth's survival and mark the ultimate triumph of the Blitzfighter's daring pilot.

Enemies

The skies are filled with a formidable enemy fleet, consisting of three distinct types of planes: Scout Fighter, Heavy Bomber, and Elite Interceptor. Each type brings its own challenges to the battlefield, from the agility of the Scouts to the heavy firepower of the Bombers and the advanced tactics of the Interceptors. Together, they form a relentless force that tests the player's skill and determination at every turn.

Game objects Description

Maze

The maze defines the battlefield, creating a dynamic and challenging environment for the player. Its intricate design forces players to navigate carefully while engaging enemies, adding an extra layer of strategy to each battle.

Bonus Pills

Occurring at Random Positions throughout the battlefield, bonus pills offer boosts to the player's energy and score. Collecting these pills helps enhance the player's abilities, providing a strategic advantage in the fight against enemy planes.

Rules

Player (Blitzfighter)

- The Blitzfighter can move horizontally across the battlefield using the left and right arrow keys.
- It can attack enemy planes, reducing their health and increasing the player's score with each successful hit.
- The Blitzfighter can collect Bonus Pills, which will increase the score when gathered.
- The player must avoid enemy attacks and strategic positioning to survive and win the game

Enemies

Scout Fighter:The Scout Fighter moves horizontally within a specific range.It can attack the Blitzfighter, and if successful, the Blitzfighter will lose health. If the Blitzfighter's health reaches zero, it will die.

Heavy Bomber:The Heavy Bomber moves diagonally within a defined range. It can attack the Blitzfighter from its range, dealing damage.

Elite Interceptor:The Elite Interceptor also moves diagonally within its specific range. It can attack the Blitzfighter from its range, dealing significant damage with each hit.

Objective of the Game

The objective of the game is for the Blitzfighter to eliminate all enemy planes and emerge victorious in the battle. Victory is achieved by successfully destroying all enemies. However, if the Blitzfighter's health reaches zero and it is destroyed, the mission will fail, resulting in defeat.

Wireframes of the Game

Startup And Main Menu

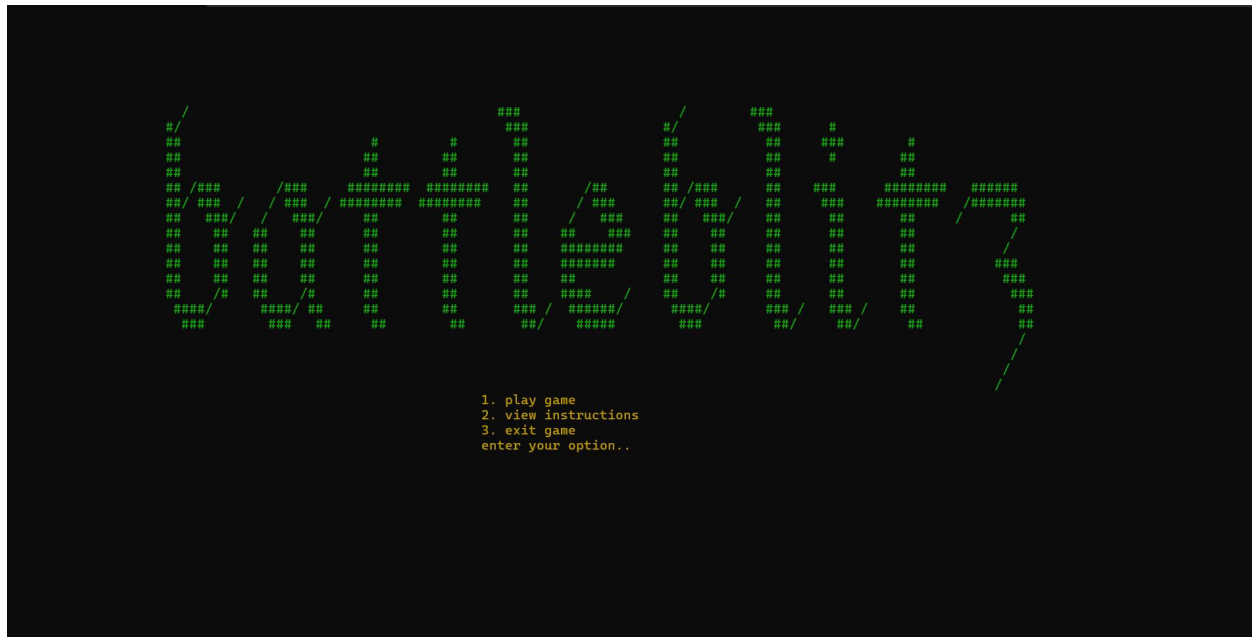


Image 1: main menu

Instructions

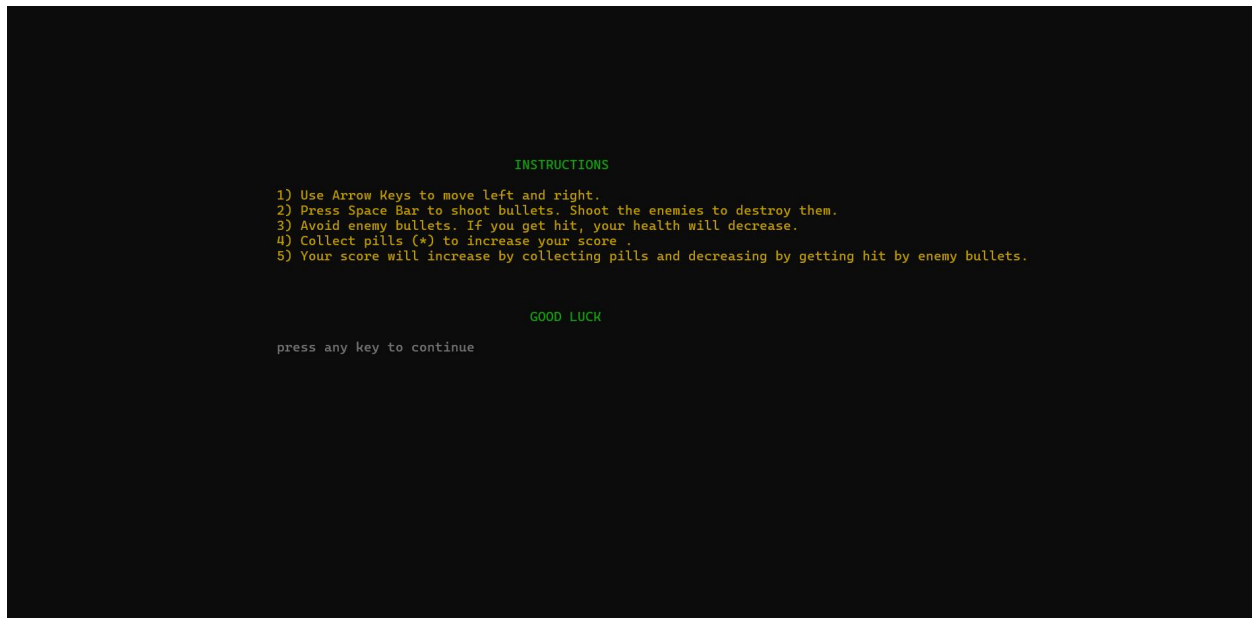


Image 2: Instructions

Function Prototypes

```
void gotoxy(int x, int y);  
char getCharAtxy(short int x, short int y);  
void setColor(int textColor, int bgColor);  
void hideCursor();
```

Header and Main Menu

```
void header();  
int menu();  
Instructions  
void instructions();
```

Maze and Scoreboard

```
void print_maze();  
void scoreboard();
```

Player movement and Shooting

```
void print_Player();  
void erase_Player();  
void move_playerLeft();  
void move_playerRight();  
void printBulletPlayer();  
void eraseBulletPlayer();  
void moveBulletPlayer();  
void shootBullet();
```

Enemies movement

```
void print_Enemy();  
void erase_Enemy();  
void move_enemy();  
void print_enemy2();  
void erase_enemy2();  
void move_enemy2();  
void print_enemy3();  
void erase_enemy3();  
void move_enemy3();
```

Bonus pills generation and movement

```
void movePill();  
void printPill();  
void erasePill();
```

Enemies life check

```
bool CheckEnemyLife1();  
bool CheckEnemyLife2();  
bool CheckEnemyLife3();
```

Enemies shooting

```
void enemy1_Shoot();
```

```
void moveEnemy1_Bullets();  
void enemy2_Shoot();  
void moveEnemy2_Bullets();  
void enemy3_Shoot();  
void moveEnemy3_Bullets();
```

Game results

```
void lose();  
void win();
```