

```
#include <stdio.h>
#include <windows.h>
#include <vector>
#include <iostream>
#include <conio.h>
```

```
using namespace std;
```

```
void setcursor(bool visible) {
    HANDLE console = GetStdHandle(STD_OUTPUT_HANDLE);
    CONSOLE_CURSOR_INFO lpCursor;
    lpCursor.bVisible = visible;
    lpCursor.dwSize = 20;
    SetConsoleCursorInfo(console,&lpCursor);
}

void gotoxy(int x, int y){
    COORD coord;
    coord.X = x;
    coord.Y = y;
    SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE), coord);
}

void setcolor(int fg, int bg){
    HANDLE hConsole = GetStdHandle(STD_OUTPUT_HANDLE);
    SetConsoleTextAttribute(hConsole, bg*16+fg);
}

//ship
void erase_ship(int x, int y){
    gotoxy(x,y);
    setcolor(0,0);
    printf(" ");
}

void draw_ship(int x, int y) {
    gotoxy(x,y);
```

```
    setcolor(4,11);
    printf("<-0->");
}

//bullet
void erase_bullet(int x, int y){
    gotoxy(x,y);
    setcolor(0,0);
    printf(" ");
}

void draw_bullet(int x,int y) {
    gotoxy(x,y);
    setcolor(4,11);
    printf("^");
}
```

```
int main() {
    vector<int> bullet_x;
    vector<int> bullet_y;
    bool moveleft = false , moveright = false;
    setcursor(0);
    int x = 30, y = 29;
    char ch = ' ';
    draw_ship(x,y);
    do {
        if (_kbhit()){
            ch = _getch();
            if(ch == 'a'){
                moveleft = true;
                moveright = false;
            }
            if(ch == 'd'){
                moveleft = false;
                moveright = true;
            }
        }
    } while (true);
}
```

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```

    }
    if(ch == 's'){
        moveleft = false;
        moveright = false;
    }
    if(ch == ' '){
        bullet_x.push_back(x+2);
        bullet_y.push_back(y-1);
    }
    fflush(stdin);
}
if(moveright){
    erase_ship(x,y);
    if (x > 114){
        draw_ship(115,y);
    } else draw_ship(++x,y);
}
else if(moveleft){
    erase_ship(x,y);
    if (x < 1){
        draw_ship(0,y);
    } else draw_ship(--x,y);
}
auto ix = bullet_x.begin();
auto iy = bullet_y.begin();
while(ix != bullet_x.end()){
    erase_bullet(*ix, *iy);
    if(*iy > 0) draw_bullet(*ix, --*iy);
    ++ix;
    ++iy;
}
Sleep(100);
}

```

```

while (ch != 'x');
return 0;
}

```

D:\Programming_Fundamental\Lab\lab_6\01.cpp - [Executing] - Dev-C++ 5.11

