

Class::Game

```
private:
    Map player; //Player map data
    const int cols=10;
    const int rows=10;
    string lstShot;
    bool playing;
    bool shot;

public:
    Game();
    virtual ~Game();
    string getLast(); //return lstShot
    void setPlay(char); //set status of playing...
    void mapClr(); //Reset entire game state to empty
    void okShot(Guess); //check to see if shot is hit or miss
    void setMap(Guess, char); //Update map after a valid
    shot
    void setShip(int, int, int, char); //Place ships on map
    char getShip(int, int) const; //display map data for
    coordinates
    char getGues(int, int) const; //display map data for
    coordinates
    short getTurn() const; //Display total number of guesses
    short getHits() const; //Display number of hits
    bool gameOn() const; //return status of playing... if true
    game in progress, false to exit
    bool getShot() const; //return value of shot
    // Friends
    friend ostream &operator << (ostream &, const Game &);
```

Class::Game

```
private:
    int targRow=11;
    int targCol=11;

public:
    Guess();
    void setRow(int); //set the row value manually
    void setCol(int); //set the column value manually
    int getRow(); //return the row guess
    int getCol(); //Return the column guess
    // Friends
    friend ostream &operator << (ostream &, const Guess &);
    friend istream &operator >> (istream &, Guess &);
```

struct::Map

```
short hits;
short guesses;
char guess[10][10]={};
char ship[10][10]={};
```

namespace::val

```
char inAlpha()
char inAlpha(char low, char high)
char inChar(char inA='\0', char inB='\0', char inC='\0', char inD='\0', char inE='\0')
template <class T>
    T inNum(T type, long long int low, long long int high)
template <class T>
    T inNum(T type)
```

colors.h

Contains ANSI color definitions

Scott Parker
BattleShip
Project 2

```
#include <iostream>
#include <cctype>
#include <ctime>
#include <cstdlib>
#include <fstream>
using namespace std;
```

```
#include "colors.h"
#include "val.h"
#include "Game.h"
#include "Map.h"
#include "Guess.h"
```

Constants
none to declare

Function Prototypes
void newBord(Game &, Game &);
void putShip(Game &);
bool locTest(int, int, int, char,
Game &);
void putComp(Game &);
void savGame(Game, Game);
void lodGame(Game &, Game &);
void conBord(Game &, Game &);

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Start Main

Set Random Seed

Variables:
int choice=0;
Game p1;
Game p2;

output:
1 to resume a saved game
2 to start a new game
0 (zero) or other to exit

input:
menu choice

Switch 1

True

conBord(p1, p2)

False

Switch 2

True

newBord(p1, p2)

False

choice>=1&&choice<=2

False

Return 0;
exit

True

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