Assignment 2

For this assignment, we are asked to write a small program to read in the options (i.e. integer numbers) through the user from the input terminal (by typing in) and give corresponding automatic responses. We were required to write a few global functions and recall them through the `main` function to achieve the targeted goal.

Same as the last homework, I first define the global variable:

```
using namespace std;
string name;
```

In this homework, three files are accounting for the implementation of the function. The header file `Menu.h` contains the enumeration option lists and include the `class` of Menu.

```
#include <string>

enum MenuChoice{
    kShowPlayer = 1,
    kChangeName,
    kChangePosition,
    kQuit,
    kInvalidChoice
};


class Menu
{
    public:
        void displayMenu();
        MenuChoice promptUser();
};
```

Since we define two classes, the exact implementation of these functions is then written in `Menu.cpp` as the corresponding "explanation file". The `Menu.cpp` file contains the `displayMenu` function written in the form `void Menu::displayMenu(){}` containing many `couts` for displaying the options for users to chose. The `promptUser` function then takes the user input number `MenuChoice Menu::promptUser()` and use casting to transfer it as the enumeration lists we wrote in the header file.

```
MenuChoice Menu::promptUser()
{
    int choice;
    cout << "Enter:" << endl;
    cin >> choice;
    MenuChoice mc;

    if (choice >= 1 || choice <= 4){
        mc = (MenuChoice) choice;
    }

    else {mc = kInvalidChoice;}
    return mc;
}
```

Eventually, the `main` file first displays the `takeAction` function to let the program choose what to play given the user input (pretty much the same as the last two homework). The big difference here is that this function no longer makes decisions based on integer input since we already predefine the enumeration list in the header file. Then we define the `main` function, which basically is taken from the hint in the instructions.