

OPTIONAL: 6.09 Implementing Player

Now that we've reversed the `Player` class, let's write our own program that makes a `Player` class and uses the functions related to the class.

```

1  #include <iostream>
2  #include <Windows.h>
3
4  class Player {
5  public:
6      int score;
7      float health;
8      std::string name;
9  };
10
11  //void __cdecl InitializePlayer(class Player * __ptr64)
12  typedef void(WINAPI* IInitializePlayer)(Player*); // ?InitializePlayer@@YAXPEAVPlayer@@@Z
13  //void PrintPlayerStats(Player);
14  typedef void(WINAPI* IPrintPlayerStats)(Player); // PrintPlayerStats
15
16  int main()
17  {
18      Player player;
19      HMODULE dll = LoadLibraryA("DLL.DLL"); //Load our DLL.
20      if (dll != NULL)
21      {
22          //Initialize Player
23          IInitializePlayer InitializePlayer = (IInitializePlayer)GetProcAddress(dll, "?InitializePlayer@@YAXPEAVPlayer@@@Z");
24          if (InitializePlayer != NULL) {
25              InitializePlayer(&player);
26          }
27          else { printf("Can't load the function."); }
28
29          //PrintPlayerStats
30          IPrintPlayerStats PrintPlayerStats = (IPrintPlayerStats)GetProcAddress(dll, "PrintPlayerStats");
31          if (InitializePlayer != NULL) {
32              PrintPlayerStats(player);
33          }
34          else { printf("Can't load the function."); }
35      }
36  }
37

```

The player's name doesn't have to be a `std::string`, it can probably be a `const* char` as well.

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#include <Windows.h>

class Player {
public:
    int score;
    float health;
    std::string name;
};

//void __cdecl InitializePlayer(class Player * __ptr64)
typedef void(WINAPI* IInitializePlayer)(Player*); // ?
InitializePlayer@@YAXPEAVPlayer@@@Z
//void PrintPlayerStats(Player);
typedef void(WINAPI* IPrintPlayerStats)(Player); // PrintPlayerStats

```

```
int main()
{
    Player player;
    HMODULE dll = LoadLibraryA("DLL.DLL"); //Load our DLL.
    if (dll != NULL)
    {
        //Initialize Player
        IInitializePlayer InitializePlayer =
        (IInitializePlayer)GetProcAddress(dll, "?InitializePlayer@@YAXPEAVPlayer@@@Z");
        if (InitializePlayer != NULL) {
            InitializePlayer(&player);
        }
        else { printf("Can't load the function."); }

        //PrintPlayerStats
        IPrintPlayerStats PrintPlayerStats =
        (IPrintPlayerStats)GetProcAddress(dll, "PrintPlayerStats");
        if (InitializePlayer != NULL) {
            PrintPlayerStats(player);
        }
        else { printf("Can't load the function."); }
    }
}
```

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