

## *Lab 6*

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# *Comp 11 - Summer Session — Wizard Student Database*

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## 6.1 Description

In this lab, you have been hired to build the School of Wizardry Student Database. Enrollment is increasing at this school rapidly, and your help is needed!

**Our objectives are the following:**

- You will create a struct that holds the following information:
  - Name
  - Year of Birth
  - Student ID
- You will create 5000 students. Note, that you can generate the information randomly.
- You will then have a loop that asks for a student ID, and prints out the student.

## 6.2 Files

You may use the following code to help get you started. A reference solution can be run on the servers here: </g/11/solutions/lab6>

```
1 #include <iostream>
2 // (1) #include any additional libraries you think you need
3
4 // (2) Define your struct up here
5 struct Wizard{
6 // Add what you think you need (member variables and member
  functions)
```

```

7
8
9 };
10
11
12 int main(){
13     // (3) Perhaps some container of your struct here(array, vector,
14         stack ?)
15
16     // (4) Generate 5000 students
17
18
19     // (5) Interactive loop here.
20     int queryID = 0;
21     while(queryID >= 0 && queryID <5000){
22         std::cout << "Wizard Student ID:";
23         std::cin >> queryID;
24
25         // Print out student information
26
27     }
28
29     return 0;
30 }

```

Listing 6.1: Starter Code

### 6.3 Refresher

Refer to some of the examples in the slides from the previous lectures.

It can be helpful to write down what your strategy will be for solving this lab before jumping in.

### 6.4 Submission

```

1 provide comp11 lab6 lab6.cpp README

```

Listing 6.2: Submit Assignment

### 6.5 Going Further

Did you enjoy this lab? Want to try out some additional commands to go further?

- This assignment has room for some creativity! Can you randomly generate names in some creative fashion?
- Do you want to add more information to your student database? Feel free to do so. Try creating another struct, and using it as a field as a struct. For example, birth date, could have three fields for month, day, and year.