

# 1 Instructions

When you are finished submit all your work through the MyClasses page for this class. Create a directory called Lab08, put each programming exercise into its own subdirectory of this directory, zip the entire Lab08 directory up into the file Lab08.zip, and then submit this zip file to Lab #8.

Make sure that you:

- Follow the coding and documentation standards for the course as published in the MyClasses page for the class.
- Check the contents of the zip file before uploading it. Make sure all the files are included.
- Make sure that the file was submitted correctly to MyClasses.

# 2 Exercise

In this exercise you will be creating a low-level relational database using the STL map structure. The map will use the person's name as the key and the information (which will be stored in a struct) as the value. Create a struct that will hold three fields, age, employee ID, and wage. Wage will be a decimal number and the other two can be integers. Create an STL map to hold the database, the key will be the person's name and the value will be the struct that has the person's information in it. Have the program print out a simple menu that allows the user to input a new employee, update an employee's information, print out the entire list of employee's in the company, and quit the program. You do not need to do any error checking on the input values except for the information update. If the user tries to update a person that is not in the database the program will not let them and instead print out an error message. A run of the program is below.

## Program Run:

```
1. Input Employee
2. Update Employee Information
3. Print Employee List
0. Quit
Selection: 1
```

```
Employee Name: Don Spickler
Employee ID: 1234
Employee Age: 57
Employee Wage: 15.5
```

```
1. Input Employee
2. Update Employee Information
3. Print Employee List
0. Quit
Selection: 1
```

Employee Name: Sue Jackson  
Employee ID: 3214  
Employee Age: 34  
Employee Wage: 25.48

1. Input Employee  
2. Update Employee Information  
3. Print Employee List  
0. Quit  
Selection: 3

Name: Don Spickler / ID: 1234 / Age: 57 / Wage: 15.5  
Name: Sue Jackson / ID: 3214 / Age: 34 / Wage: 25.48

1. Input Employee  
2. Update Employee Information  
3. Print Employee List  
0. Quit  
Selection: 1

Employee Name: John Doe  
Employee ID: 5555  
Employee Age: 27  
Employee Wage: 21.55

1. Input Employee  
2. Update Employee Information  
3. Print Employee List  
0. Quit  
Selection: 3

Name: Don Spickler / ID: 1234 / Age: 57 / Wage: 15.5  
Name: John Doe / ID: 5555 / Age: 27 / Wage: 21.55  
Name: Sue Jackson / ID: 3214 / Age: 34 / Wage: 25.48

1. Input Employee  
2. Update Employee Information  
3. Print Employee List  
0. Quit  
Selection: 2

Employee Name: Jack Frost  
Jack Frost is not employed at this company.

1. Input Employee  
2. Update Employee Information  
3. Print Employee List  
0. Quit  
Selection: 2

Employee Name: Don Spickler  
Input New Information for Don Spickler  
Employee ID: 1234  
Employee Age: 58  
Employee Wage: 20.50

1. Input Employee  
2. Update Employee Information  
3. Print Employee List  
0. Quit  
Selection: 3

Name: Don Spickler / ID: 1234 / Age: 58 / Wage: 20.5  
Name: John Doe / ID: 5555 / Age: 27 / Wage: 21.55

Name: Sue Jackson / ID: 3214 / Age: 34 / Wage: 25.48

1. Input Employee  
2. Update Employee Information  
3. Print Employee List  
0. Quit  
Selection: 0