Lab 3

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Lab: Lab 3

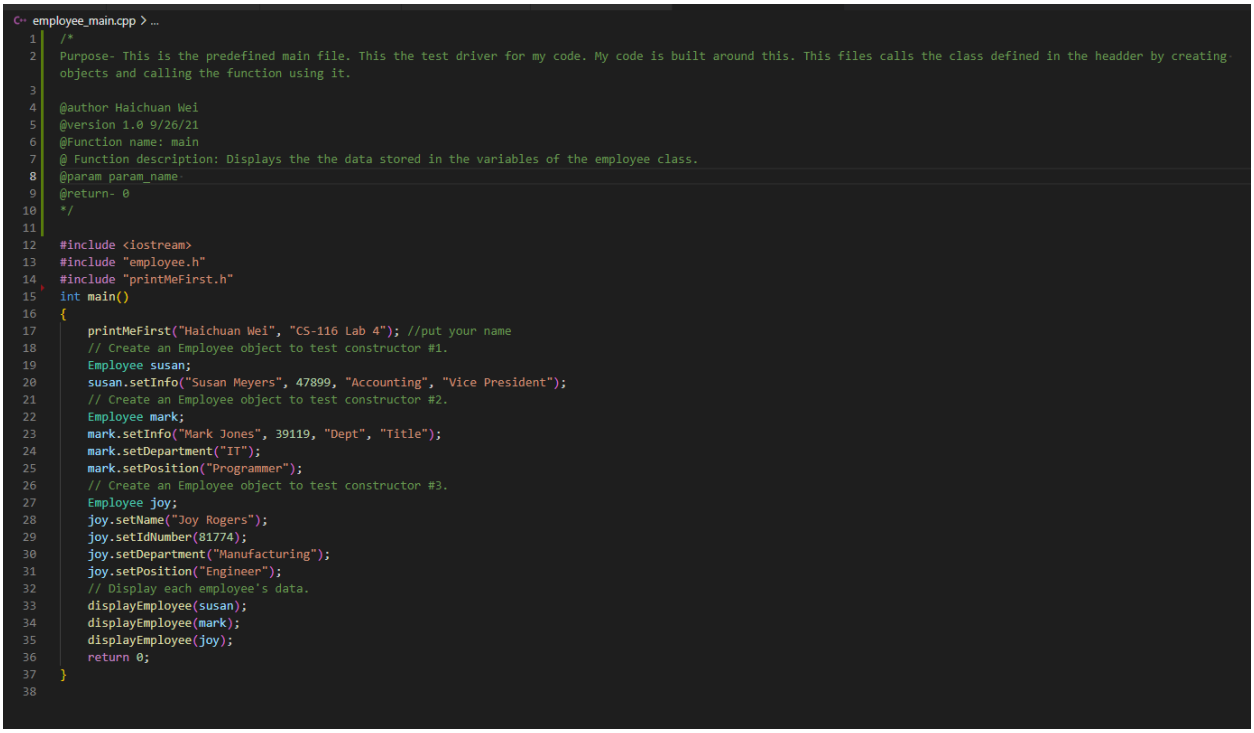
Date: 9/26/2021

Program Description

- **This program takes in employee data passed by the test driver and outputs it in a table. Class structurers are used to organize and run the past data. This program was a way to learn how to use class structurers and show how powerful they can be.**

Program Source code

Employee_main.cpp



```cpp
/*
Purpose- This is the predefined main file. This the test driver for my code. My code is built around this. This files calls the class defined in the headder by creating objects and calling the function using it.

@author Haichuan Wei
@version 1.0 9/26/21
@Function name: main
@ Function description: Displays the the data stored in the variables of the employee class.
@param param_name
@return- 0
*/

#include <iostream>
#include "employee.h"
#include "printMeFirst.h"
int main()
{
    printMeFirst("Haichuan Wei", "CS-116 Lab 4"); //put your name
    // Create an Employee object to test constructor #1.
    Employee susan;
    susan.setInfo("Susan Meyers", 47899, "Accounting", "Vice President");
    // Create an Employee object to test constructor #2.
    Employee mark;
    mark.setInfo("Mark Jones", 39119, "Dept", "Title");
    mark.setDepartment("IT");
    mark.setPosition("Programmer");
    // Create an Employee object to test constructor #3.
    Employee joy;
    joy.setName("Joy Rogers");
    joy.setIdNumber(81774);
    joy.setDepartment("Manufacturing");
    joy.setPosition("Engineer");
    // Display each employee's data.
    displayEmployee(susan);
    displayEmployee(mark);
    displayEmployee(joy);
    return 0;
}
```

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Employee.cpp

employee.cpp > ...

```cpp
/*
Purpose- This file contains the implementation of the Employee class. The employee main file runs the code here.
@author Haichuan Wei @Arthur-Systems
@version 1.0 9/26/21
@Function name: displayEmployee
@ Function description: Displays the the data stored in the variables of the employee class.
@param string name the name of the employee , int idNumber the Id number , string department the department , string position the position they hold
@return- name, idNumber , department ,position
*/

#include <iostream>
#include "employee.h"
#include "printMeFirst.h"

void Employee::setInfo(string name, int idNumber, string department, string position)
{
    this->name = name;
    this->idNumber = idNumber;
    this->department = department;
    this->position = position;
};
//setDepartment
void Employee::setDepartment(string department)
{
    this->department = department;
};
//setPosition
void Employee::setPosition(string position)
{
    this->position = position;
};
//setName
void Employee::setName(string name)
{
    this->name = name;
};
void Employee::setIdNumber(int idNumber)
{
    this->idNumber = idNumber;
};

//getData
string Employee::getName()
{
    return name;
};
```

```cpp
};
int Employee::getIdNumber()
{
    return idNumber;
};
string Employee::getDepartment()
{
    return department;
};
string Employee::getPosition()
{
    return position;
};

//displayEmployee
void displayEmployee(Employee employee)
{
    cout << endl;
    cout << "Name: " << employee.getName() << endl;
    cout << "ID Number: " << employee.getIdNumber() << endl;
    cout << "Department: " << employee.getDepartment() << endl;
    cout << "Position: " << employee.getPosition() << endl;
};
```

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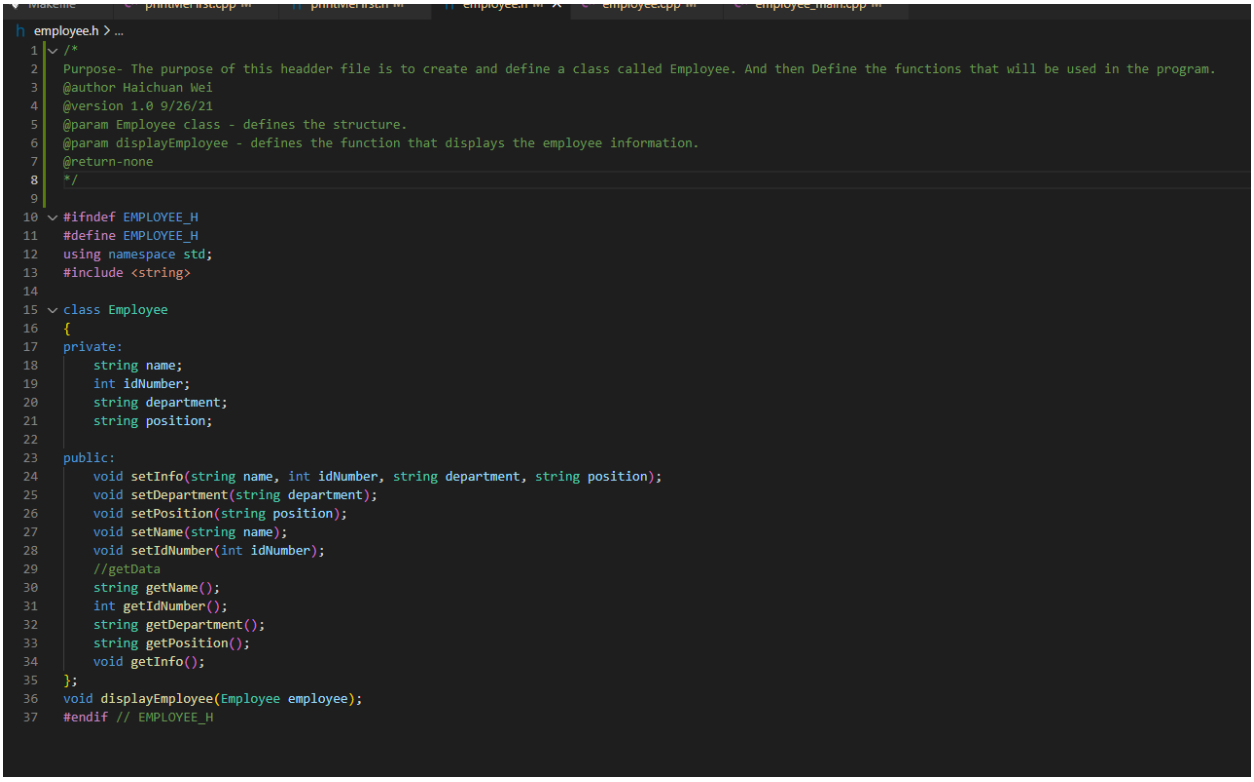
Employee.h



```h
/*
Purpose- The purpose of this headder file is to create and define a class called Employee. And then Define the functions that will be used in the program.
@author Haichuan Wei
@version 1.0 9/26/21
@param Employee class - defines the structure.
@param displayEmployee - defines the function that displays the employee information.
@return-none
*/

#ifndef EMPLOYEE_H
#define EMPLOYEE_H
using namespace std;
#include <string>

class Employee
{
private:
    string name;
    int idNumber;
    string department;
    string position;

public:
    void setInfo(string name, int idNumber, string department, string position);
    void setDepartment(string department);
    void setPosition(string position);
    void setName(string name);
    void setIdNumber(int idNumber);
    //getData
    string getName();
    int getIdNumber();
    string getDepartment();
    string getPosition();
    void getInfo();
};
void displayEmployee(Employee employee);
#endif // EMPLOYEE_H
```

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printMeFirst.cpp

```cpp
/*
Purpose- Prints the information of the developer.
@author Haichuan Wei
@version 1.0 9/26/21
@param name - Haichuan WEi
@param courseInfo - CS-116 OOP C++
@return-none
*/
#include "printMeFirst.h"
#include <string>
#include <iostream>
#include <iomanip>
#include <ctime>
using namespace std;
void printMeFirst(string name, string courseInfo)
{
    cout << "Program written by: " << name << endl;
    cout << "Course Info: " << courseInfo << endl;
    time_t now = time(0);
    char *dt = ctime(&now);
    cout << "Date: " << dt << endl;
}
```

printMeFirst.h

```h
#ifndef LAB_PRINTMEFIRST_H
#define LAB_PRINTMEFIRST_H
#include <string>
using namespace std;
void printMeFirst(string name, string courseInfo);
#endif //LAB_PRINTMEFIRST_H
```

Program Output

My output matches the example