

Employee.h:

```
#include <iostream>
#include <string>
#include "employee.h"
using namespace std;

#ifndef WAITER
#define WAITER
class waiter : public employee
{
public:
    waiter(long employeeID = 0, string last = "", string first = "",
           char employeeType = ' ', double salary = 3000, double profit = 0, double
tip = 0, string experience = "");
    virtual void display(ostream& out) const;
    virtual double Calculate_salary(double profit, double tip);
private:
    string experience;
    double sal = getSalary(); //accessor
};
inline waiter::waiter
(long employeeID, string last, string first, char employeeType,
 double salary, double profit, double tip, string experience)
:employee(employeeID, last, first, employeeType, salary, profit, tip),
experience(experience)
{}
inline void waiter::display(ostream& out)const
{
    out << "employID " << "last name " << "first name " << "status " << "salary " <<
"profit " << "tip " <<"experience" << endl;
    employee::display(out);
    out << experience << endl;
}
inline double waiter::Calculate_salary(double profit, double tip) // waiter only have tip
as additional salary
{
    sal = sal + tip;
    return sal;
};
#endif
```

Owner.h :

```
#include <iostream>
#include "employee.h"
#include <string>
using namespace std;

#ifndef OWNER
#define OWNER
class owner : public employee
{
public:
    owner(long employeeID = 0, string last = "", string first = "",
          char employeeType = ' ', double salary = 15000, double profit = 0, double
tip = 0);
    virtual void display(ostream& out) const;
    virtual double Calculate_salary(double profit, double tip);
private:
    double sal = getSalary(); // accessor
};
inline owner::owner
(long employeeID, string last, string first, char employeeType,
 double salary, double profit, double tip)
:employee(employeeID, last, first, employeeType, salary, profit, tip)
{}
inline void owner::display(ostream& out)const
{
    out << "employID " << "last name " << "first name " << "status " << "salary " <<
"profit " << "tip" << endl;
    employee::display(out);
    out << endl;
}
inline double owner::Calculate_salary(double profit, double tip) // owner has 60 % of
the profit as the additional slary
{
    if (profit >= -25000)
        sal = sal + 0.6 * profit;
    else
        sal = 0;
    return sal;
};

#endif
```

## Chef.h

```
#include <iostream>
#include <string>
#include "employee.h"
using namespace std;

#ifndef CHEF
#define CHEF
class chef : public employee
{
public:
    chef(long employeeID =0, string last = "", string first = "",
        char employeeType = ' ', double salary = 10000, string cuisine = "", double
profit = 0, double tip = 0);
    virtual void display(ostream& out) const;
    virtual double Calculate_salary(double profit, double tip);
private:
    string cuis;
    double sal = getSalary(); //accessor
};
inline chef::chef
(long employeeID, string last, string first, char employeeType,
    double salary, string cuisine, double profit, double tip)
    :employee(employeeID, last, first, employeeType, salary, profit, tip),
cuis(cuisine)
{}
inline void chef::display(ostream& out)const //
{
    out << "employID " << "last name " << "first name " << "status " << "salary " <<
"profit " << "tip " << "cuisine" << endl;
    employee::display(out);
    out << cuis << endl;
}
inline double chef::Calculate_salary(double profit, double tip) // chef has 20%
additional salary from the profit
{
    if (profit >= -25000)
        sal = sal + 0.2 * profit;
    else
        sal = 5000;
    return sal;
};

#endif
```

Waiter.h:

```
#include <iostream>
#include <string>
#include "employee.h"
using namespace std;

#ifndef WAITER
#define WAITER
class waiter : public employee
{
public:
    waiter(long employeeID = 0, string last = "", string first = "",
           char employeeType = ' ', double salary = 3000, double profit = 0, double
tip = 0, string experience = "");
    virtual void display(ostream& out) const;
    virtual double Calculate_salary(double profit, double tip);
private:
    string experience;
    double sal = getSalary(); //accessor
};
inline waiter::waiter
(long employeeID, string last, string first, char employeeType,
 double salary, double profit, double tip, string experience)
    :employee(employeeID, last, first, employeeType, salary, profit, tip),
experience(experience)
{}
inline void waiter::display(ostream& out)const
{
    out << "employID " << "last name " << "first name " << "status " << "salary " <<
"profit " << "tip " <<"experience" << endl;
    employee::display(out);
    out << experience << endl;
}
inline double waiter::Calculate_salary(double profit, double tip) // waiter only have tip
as additional salary
{
    sal = sal + tip;
    return sal;
};

#endif
```

## Driver.cpp

```
#include <iostream>
#include "employee.h"
#include "chef.h"
#include "owner.h"
#include "waiter.h"
#include <list>
using namespace std;
int main()
{
    double profit1, tip1;
    cout << "please enter the profit and tip:" << endl;
    cin >> profit1;
    cin >> tip1;
    employee* p;
    list<employee*> emplList;
    p = new owner(11111, "tsire", "mariami", 'o', 15000, profit1, tip1);
    emplList.push_back(p);
    p = new chef(22222, "Gordon", "Ramsey", 'c', 10000, "french", profit1, tip1);
    emplList.push_back(p);
    p = new chef(22222, "Oliver", "Jamie", 'c', 10000, "Italian", profit1, tip1);
    emplList.push_back(p);
    p = new waiter(33333, "Oliver", "Anne", 'w', 3000, profit1, tip1, "1w");
    emplList.push_back(p);
    p = new waiter(33333, "Puck", "Marrie", 'w', 3000, profit1, tip1, "3w");
    emplList.push_back(p);
    p = new waiter(33333, "Rayolds", "Nina", 'w', 3000, profit1, tip1, "2w");
    emplList.push_back(p);

    for (list<employee*>::iterator it = emplList.begin();
        it != emplList.end(); it++)
    {
        p = *it;
        cout << *p << endl;
        cout << "total salary" << endl;
        cout << p->Calculate_salary(profit1, tip1) << endl << endl;
    }
}
```