```cpp
#include "Package.h"
#include "TwoDay.h"
#include "Overnight.h"
#include <iostream>
using namespace std;

int main()
{
    // Create a Package object
    Package package("John Doe", "123 Main St", "Anytown", "CA", "12345",
                    "Jane Smith", "456 Elm St", "Othertown", "NY", "54321",
                    10, 0.5);
    cout << "Package shipping cost: $" << package.calculateCost() << endl;

    // Create a TwoDayPackage object
    TwoDayPackage twoDayPackage("John Doe", "123 Main St", "Anytown", "CA", "12345", "Jane Smith", "456 Elm St", "Othertown", "NY", "54321", 10, 0.5, 5);
    cout << "Two-day package shipping cost: $" << twoDayPackage.calculateCost() << endl;

    // Create an OvernightPackage object
    OvernightPackage overnightPackage("John Doe", "123 Main St", "Anytown", "CA", "12345", "Jane Smith", "456 Elm St", "Othertown", "NY", "54321", 10, 0.5, 2);
    cout << "Overnight package shipping cost: $" << overnightPackage.calculateCost() << endl;

    return 0;

}

```

```cpp
#ifndef PACKAGE_H
#define PACKAGE_H

#include <iostream>
#include <string>
using namespace std;

class Package{
    public:
        Package(string, string, string, string, string,
                string, string, string, string, string, int, double);

        double calculateCost() const;

        const double weight;
        const double cost;

    private:
        string s_name;
        string s_address;
        string s_city;
        string s_state;
        string s_ZIP_code;

        string r_name;
        string r_address;
        string r_city;
        string r_state;
        string r_ZIP_code;

};

#endif
```

```cpp
#include "Package.h"
#include <iostream>
using namespace std;

Package::Package(string s_NAME, string s_ADDRESS, string s_CITY, string s_STATE, string s_ZIP,
                 string r_NAME, string r_ADDRESS, string r_CITY, string r_STATE, string r_ZIP,
                 int WEIGHT, double COST)
    : s_name(s_NAME), s_address(s_ADDRESS), s_city(s_CITY), s_state(s_STATE), s_ZIP_code(s_ZIP),
      r_name(r_NAME), r_address(r_ADDRESS), r_city(r_CITY), r_state(r_STATE), r_ZIP_code(r_ZIP),
      weight(WEIGHT), cost(COST)
{

    if (weight < 0)
        cout << "The weight should be positive." << endl;
    if (cost < 0)
        cout << "The cost should be positive." << endl;

}

double Package::calculateCost() const{
    return weight * cost;
}
```

```cpp
#ifndef TWODAY_H
#define TWODAY_H

#include "Package.h"
#include <string>
using namespace std;

class TwoDayPackage : public Package{
    public:
        TwoDayPackage(string, string, string, string, string,
                      string, string, string, string, string,
                      int, double, int);

        double calculateCost() const;

    private:
        double flat_fee;

};

#endif
```

```cpp
#include "TwoDay.h"
#include <iostream>
using namespace std;

TwoDayPackage::TwoDayPackage(string s_NAME, string s_ADDRESS, string s_CITY, string s_STATE, string s_ZIP,
                             string r_NAME, string r_ADDRESS, string r_CITY, string r_STATE, string r_ZIP,
                             int WEIGHT, double COST, int FEE)
    : Package(s_NAME, s_ADDRESS, s_CITY, s_STATE, s_ZIP,
              r_NAME, r_ADDRESS, r_CITY, r_STATE, r_ZIP,
              WEIGHT, COST), flat_fee(FEE)
{
    flat_fee = FEE;
}

double TwoDayPackage::calculateCost() const{
    return (Package::calculateCost() + flat_fee);
}
```

```h
#ifndef OVERNIGHT_H
#define OVERNIGHT_H

#include "Package.h"
#include <string>
using namespace std;

class OvernightPackage : public Package{
    public:
        OvernightPackage(string, string, string, string, string,
                         string, string, string, string, string,
                         int, double, int);

        double calculateCost() const;

    private:
        double add_fee;
};

#endif
```

```cpp
#include "Overnight.h"
#include <iostream>
using namespace std;

OvernightPackage::OvernightPackage(string s_NAME, string s_ADDRESS, string s_CITY, string s_STATE, string s_ZIP,
                                   string r_NAME, string r_ADDRESS, string r_CITY, string r_STATE, string r_ZIP,
                                   int WEIGHT, double COST, int FEE)
    : Package(s_NAME, s_ADDRESS, s_CITY, s_STATE, s_ZIP,
              r_NAME, r_ADDRESS, r_CITY, r_STATE, r_ZIP,
              WEIGHT, COST), add_fee(FEE)
{
    add_fee = FEE;
}

double OvernightPackage::calculateCost() const{
    return (Package::weight * (Package::cost + add_fee) );
}
```

```
Package shipping cost: $5
Two-day package shipping cost: $10
Overnight package shipping cost: $25
```