

Source code:

Person.h file:

```
#ifndef _PERSON_H_
#define _PERSON_H_
#include <string>
using namespace std;

class Person{
    private:
        string name;
        double salary;

    public:
        void setPerson();
        string getName();
        double getSalary();
};
#endif // _PERSON_H
```

Person.cpp file:

```
#include "Person.h"

void Person::setPerson() {
    cout << "Enter name: ";
    cin >> this->name;
    cout << "Enter Salary: ";
    cin >> this->salary;
    cout << endl;
}

string Person::getName() {
    return this->name;
}

double Person::getSalary() {
    return this->salary;
}
```

Main.cpp file:

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

void bSort(Person **person, int n, bool s);
void order(Person **personi, Person **personiPlus1);
void display(Person **person, int length);

int main(){
    int numOfPeople {0};
    cout << "How many people would you like to enter? ";
    cin >> numOfPeople;
    cout << endl;

    Person *ptr[numOfPeople]; // have array of pointers of type person

    for (int i {0}; i < numOfPeople; i++){ //fill up array of type person
        ptr[i] = new Person();
        ptr[i] -> setPerson();
    }

    cout << "Unsorted Order of People: " << endl;
    display(ptr, numOfPeople);
    cout << endl;

    cout << "People Sorted by Salary: " << endl << endl;
    bSort(ptr, numOfPeople, false);
    display(ptr, numOfPeople);
    cout << endl;

    cout << "People Sorted by Name: " << endl << endl;
    bSort(ptr, numOfPeople, true);
    display(ptr, numOfPeople);
    cout << endl;

    for (int i {0}; i<numOfPeople; i++){ //deleting the array of pointers
        delete ptr[i];
    }
    return 0;
}
```

```

}

void bSort(Person **person, int n, bool s){
    for(int i {0}; i < n; i++){
        for(int j {i+1}; j < n; j++){
            Person *temp;
            if((s == false && person[i]->getSalary() > person[j] ->
getSalary()) || (s == true && person[i] -> getName() > person[j] ->
getName())){
                //    temp = person[i];
                //    person[i] = person[j];
                //    person[j] = temp;
                order(person + i, person + j);
            }
        }
    }
}

void order(Person **personi, Person **personiPlus1){
    Person *tmp = *personi;
    *personi = *personiPlus1;
    *personiPlus1 = tmp;
}

void display(Person **person, int length){
    for(int i {0}; i < length; i++){
        printf("%-10s$%-10.2f", person[i]->getName().c_str(),
person[i]->getSalary());
        cout << endl;
    }
}

```

Runtime output:

How many people would you like to enter? 3

Enter name: raymond

Enter Salary: 32234

Enter name: raul

Enter Salary: 54393

Enter name: alex
Enter Salary: 54589

Unsorted Order of People:
raymond \$32234.00
raul \$54393.00
alex \$54589.00

People Sorted by Salary:

raymond \$32234.00
raul \$54393.00
alex \$54589.00

People Sorted by Name:

alex \$54589.00
raul \$54393.00
raymond \$32234.00