

Classes and Inheritance

```
-----  
Address 123 Main  
City Biloxi      State MS      Zip 39506  
Price 222000  
Bathrooms 2      Bedrooms 3  
  
Realtor Name Darrell Wright      Realtor Phone 444-555-6666  
  
Agency Name Get Real Estate      Agency Phone 333-666-7777  
Agency Fax (No bears allowed) 333-666-7778  
-----
```

The fields address, city, state and zip are found in the class **houstorecord**. The definition or template of **houstorecord** is found in the file **house.h** which is in a separate file.

It is part of this program by the use of **#include** "house.h" on line 13.

The information for Realtor Name and Realtor Phone are found in the class **realtor_record**. The definition or template of **realtor_record** is found in the file **realtor.h** which is in a separate file.

It is part of this program by the use of **#include** "realtor.h" on line 12.

```
1  using namespace std;  
2  
3  #include <fstream>  
4  #include <iostream>  
5  #include <string>  
6  #include <iomanip>  
7  
8  class houstorecord;  
9  class realtor_record;  
10 class realty_record;  
11 #include "realty.h"  
12 #include "realtor.h"  
13 #include "house.h"  
14 #include "functions.h"  
15  
16  
17 //-----  
18  
19 int main()  
20  
21 {  
22     int i;  
23     houstorecord temp;  
24     temp.addhouse();  
25     temp.printform();  
26     return 0;  
27 }
```

The information for Agency Name, Agency Phone and Agency Fax are found in the class **realty_record**. The definition or template of **realty_record** is found in the file **realty.h** which is in a separate file.

It is part of this program by the use of **#include** "realty.h" on line 11.

This is the contents of the file **house.h**

The fields address, city, state and zip are found in the class **housetrecord**.

It is part of the main program by the use of **#include** "house.h" on line 13.

```
1 class housetrecord : public realtor_record
2 {
3 //private :
4 public:
5     double price;
6 //public:
7     string address;
8     string city;
9     string state;
10    string zip;
11    double bathrooms;
12    int bedrooms;
13    realtor_record realtor();
14
15    void printhouse();
16    void addhouse();
17    void printform();
18    void printfile();
19
20    housetrecord ()
21    { address="123 Main";
22      city = "Biloxi";
23      state = "MS";
24      zip="39506";
25      bathrooms=2;
26      bedrooms=3;
27    };
28 }
```

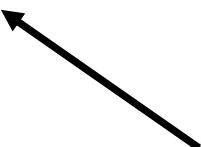
This allows housetrecord to **inherit** the class **realtor_record**.

As discussed before this is a constructor for the class **house_record**.

The information for Realtor Name and Realtor Phone are found in the class ***realtor_record***. The definition or template of ***realtor_record*** is found in the file ***realtor.h*** which is in a separate file.

It is part of this program by the use of ***#include*** "realtor.h" on line 12.

```
1  class realtor_record : public realty_record
2  {
3  private :
4      string name;
5      string realtorphone;
6  public :
7      realtor_record ()
8      {   name="Darrell Wright";
9          .....
          realtorphone ="444-555-6666";}
10
11      string getname()
12      { return name;
13      }
14      string getrealtorphone()
15      { return realtorphone;
16      }
17  };
18
```



This allows ***realtor_record*** to ***inherit*** the class ***realty_record***.

```

11
12 class realty_record
13 {
14 private :
15     string name;
16     string phone;
17     string fax;
18 public :
19     realty_record()
20     { name="Get Real Estate";
21       phone ="333-666-7777";
22       fax ="333-666-7778";
23     }
24     string getcompname()
25     { return name;
26     }
27     string getphone()
28     { return phone;
29     }
30     string getfax()
31     { return fax;
32     }
33 };
34

```

The information for Agency Name, Agency Phone and Agency Fax are found in the class **realty_record**. The definition or template of realty_record is found in the file **realty.h** which is in a separate file.

It is part of this program by the use of **#include** "realty.h" on line 11.

```

1 void houserecord :: addhouse()
2 { address="123 Main";
3   city ="Biloxi";
4   state ="MS";
5   zip="39506";
6   price=222000;
7   bathrooms=2;
8   bedrooms=3;
9 }
10 //-----
11 void houserecord :: printform()
12 { cout << "\n\n\t-----\n";
13   cout << "\tAddress " << setw(23) << left << address
14     << "\n\tCity " << setw(15) << left << city
15     << " State " << setw(10) << left << state
16     << " Zip " << setw(10) << left << zip
17     << "\n\tPrice " << setw(8) << left << price
18     << "\n\tBathrooms " << setw(6) << bathrooms
19     << " Bedrooms " << setw(6) << bedrooms
20     << "\n\n\tRealtor Name " << getname() << "\t"
21     << "Realtor Phone " << getrealtorphone()
22     << "\n\n\tAgency Name " << getcompname() << "\t"
23     << "Agency Phone " << getphone()
24     << "\n\tAgency Fax (No bears allowed) " << getfax()
25     << endl;
26   cout << "\n\n\t-----\n";
27 }
28 //-----
29 void houserecord::printhouse ()
30 { cout << setw(23) << left << address
31   << setw(15) << left << city
32   << setw(10) << left << state
33   << setw(10) << left << zip
34   << setw(8) << right << price
35   << setw(6) << right << bathrooms
36   << setw(6) << right << bedrooms << "\n"
37   << getname() << "\t"
38   << getrealtorphone() << "\t"
39   << getcompname() << "\t"
40   << getphone() << "\t"
41   << getfax()
42   << endl
43   << endl;
44   return;
45 }
46

```

The functions ***addhouse()*** ,
printform() and ***printhouse()***
for ***houserecord*** can be
found in the file ***functions.h***
which is in a separate file.

It is part of this program by
the use of ***#include***
"realtor.h" on line 14.

These lines access the variables in house_record.

These lines access the functions (and their
associated data) in realtor_record.

These lines access the functions (and their
associated data) in realty_record.