

## Structures to Classes

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

struct emprecord
{ int id;
  double gross, hours, rate, net, fed, state, fica,
  fedtax, statetax;
};

void getinfo(emprecord & employee)

int main ()
{ int i;
  emprecord employee;
  //-----
  for (i=0;i<3;i++)
  { getinfo(employee);
  //-----

  employee.gross = employee.hours* employee.rate;
  employee.net = employee.gross*0.7;
  //-----

  cout.setf(ios::fixed);
  cout.setf(ios::showpoint);
  cout.precision(2);
  cout << "Gross : $ " << employee.gross << "\t";
  cout << "Hours : " << employee.hours << endl;
  cout << "Rate : " << employee.rate << endl;
  cout << "net : " << employee.net << endl;
  }
  return (0);
}
```

The function **getinfo()** is now a part of the data type.

```
void getinfo(emprecord & employee)
{ cout << " Enter id ";
  cin >> employee.id;
  cout << " Enter Hours ==> ";
  cin >> employee.hours;
  cout << " Enter Rate ==> ";
  cin >> employee.rate;
}
```

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

class emprecord
{public :
  void getinfo();
  double gross, net, fed, state, fica, fedtax, statetax;
  int id;
  double hours, rate;
};

int main ()
{ int i;
  emprecord employee;
  //-----
  for (i=0;i<3;i++)
  { employee.getinfo();
  //-----

  employee.gross = employee.hours*employee.rate;
  employee.net = employee.gross*0.7;
  //-----

  cout.setf(ios::fixed);
  cout.setf(ios::showpoint);
  cout.precision(2);
  cout << "Gross : $ " << employee.gross << "\t";
  cout << "Hours : " << employee.hours << endl;
  cout << "Rate : " << employee.rate << endl;
  cout << "net : " << employee.net << endl;
  }
  return (0);
}
```

The variables in the old version that are related to the employee are now in the **class** emprecord and are considered to be fields in the class. They are declared to be of type **public**.

The function call for **getinfo()** is now part of the variable name.

```
void emprecord :: getinfo()
{ cout << " Enter id ";
  cin >> id;
  cout << " Enter Hours ==> ";
  cin >> hours;
  cout << " Enter Rate ==> ";
  cin >> rate;
}
```

The variables no longer have to be identified as being part of employee, since the function is part of the class. The values are automatically stored and passed back as part of the class.

