



# Writing Classes



Tags

Completed



Driving Question:



Summary:



Notes:

User Defined classes are service classes, they encapsulate data

## ▼ *Data Hiding*

Publishing the API but not the body of the code. The client does not have to know how the code works

- User defined classes are reusable
- Client programs call/invoke methods and constructors

```
public class ClassName {  
    private datatype variableName  
}
```

Objects have:

▼ State

Instance variables - attributes

▼ Behaviors

Methods

```
public Auto() {  
    model = "unknown";  
}
```

- Methods signature includes the method name and parameter types
- Main/Caller passes arguments
- Method/Constructor receives parameters

```
System.out.println(suv.toString());
```

```
public String toString() {  
    return ("Auto " + model + "miles driven " + milesDriven + "gallons " + gallonsOfGas);  
}
```

▼ Pg. 372

```
public Auto setModel (String model) {  
    this.model = model;  
    return this;  
}
```

Constructors do not have a return value

▼ Main Method Client

Test and run class

**WeatherForecastClient**

▼ Service Class

## **WeatherForecast**

### ▼ Constructor

Set default constructor

Overload (2 parameters)

- Gets
- Sets
- toString
- equals
- convert
- consistent

### ▼ Static Class Members

Instance Variables should be private and the constructors and methods should be public

The return type should match the type of the variable being returned