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### 3.1 First-Cut:ObjectElements

2. Answer the following question in a word processor file:

Why does this line of code compile?

```
stadiums.put("Bridgeforth Stadium", 25000)
```

Stadium connects to the ObjectMap class and the ObjectMap class has a method called "put" that takes two arguments.

### 3.2 Revision: Generic Elements

4. Answer the following questions in a word processor file:

(a) What happens if you re-introduce the problem that you fixed in Section 3.1, Step 1?

You need to fix it again while also including the generics

(b) Will the resulting code compile?

No because main is trying to access a non static thing

(c) Why do you think generic collection classes are sometimes called "type-safe" collections?

It is something with a flexible type.

5. Answer the following questions in a word processor file:

(a) List some reasons that the Generic Twople class might be preferable to the Object Twople class.

It simplifies the process by making the generic and gives them parameterized types

(b) Can you think of any situations where the Object Twople class might be preferable

If you need things without parameters or working in a setting where multiple people are going to be seeing the code.

### 3.3 Wildcards and Subclasses

Copy the contents of CompilerIssues.java (Listing 5) into a word processor file:

Week11LabReport.doc.

Comment each assignment statement with either:

// Compiles

Or

// Does Not Compile

For those lines that will not compile, include an explanation of the problem.

Once you have finished all of the statements, check your answers by attempting to compile.

```
public class CompilerIssues {
    public static void main(String[] args) {

        GenericTwople<String, Integer> p1; // Compiles
        GenericTwople<String, Number> p2; // Compiles
        GenericTwople<Object, Object> p3; // Compiles
        GenericTwople<?, ?> p4; // Compiles
        GenericTwople<?, ? extends Number> p5; // Compiles

        p1 = new GenericTwople<String, Integer>("A", 7); // Compiles
        int a = p1.getSecond(); // Compiles

        p1 = new GenericTwople<Integer, Double>(23, 12.0); // Does Not
        Compile
        p1 was made with String and Integer and cannot be converted
        from Integer and Double.
```

p2 = new GenericTwople<String, Integer>("B", 8);// Does Not Compile

p2 was made with String and Number and cannot be converted from String and Integer.

p3 = new GenericTwople<String, Integer>("C", 9);// Does Not Compile

p3 was made with Object and Object and cannot be converted from String and Integer.

p4 = new GenericTwople<String, String>("House", "Car");// Compiles

p4 = new GenericTwople<String, Integer>("D", 10);// Compiles

Integer b = p4.getSecond();// Does Not Compile  
p4 is not an Integer and cannot become Integer b.

Integer c = (Integer) p4.getSecond();// Compiles

p5 = new GenericTwople<String, String>("E", "G");// Compiles X

p5 = new GenericTwople<String, Double>("E", 11.0);// Compiles

p5 = new GenericTwople<String, Integer>("E", 11);// Compiles

Integer d = p4.getSecond();// Does Not Compile  
p4 is not an Integer and cannot become Integer d.

Integer e = (Integer) p4.getSecond();// Compiles

}

}