242 XML Basics

minOccurs and maxOccurs are generalizations of the cardinality operators?, \*, and +, offered by DTDs. When cardinality constraints are not provided explicitly, minOccurs and maxOccurs have value 1 by default.

```
Here are a few examples.
```

```
<element name="email"/>
<element name="head" minOccurs="1" maxOccurs="1"/>
<element name="to" minOccurs="1"/>
```

## **Attribute Types**

The syntax of attribute types is

```
<attribute name="..."/>
```

and they may have a number of optional attributes, such as types,

```
type="..."
```

or existence (corresponds to #OPTIONAL and #IMPLIED in DTDs),

use="x", where x may be optional or required or prohibited,

or a default value (corresponds to #FIXED and default values in DTDs).

Here are examples:

```
<attribute name="id" type="ID" use="required"/>
<attribute name="speaks" type="Language" use="optional"

default="en"/>
```