## References of Different Types

Before going any further, let's remind ourselves that `Dissertation` implements `IFlippable`, which has the `CurrentPage` property and `Flip()` method. You'll need this info in a minute.

In our previous example both references to the `Dissertation` object were of type `Dissertation`:

```
Dissertation diss1 = new Dissertation();
Dissertation diss2 = diss1;
```

Whenever we use `diss1` and `diss2` we can handle the `Dissertation` object as if it were a `Dissertation` type. Since `Dissertation` also implements the `IFlippable` interface, we can reference it that way too:

```
Dissertation diss = new Dissertation(50);
IFlippable fdiss = diss;
```

Now `diss` and `fdiss` refer to the same object, but `fdiss` is an `IFlippable` reference, so it can ONLY use `IFlippable` functionality:

```
diss.Flip();
fdiss.Flip();
Console.WriteLine(diss.Define());
// This causes an error!
Console.WriteLine(fdiss.Define());
```

This last line causes an error because `Define()` is not a method in the `IFlippable` interface. The other lines do NOT cause errors because they use members that both `IFlippable` and `Dissertation` have.

This rule also applies to base classes too, so we can refer to a `Dissertation` object as `Book`.

```
Dissertation diss = new Dissertation(50);
Book bdiss = diss;
```

```
Console.WriteLine(diss.Title);
Console.WriteLine(bdiss.Title);
diss.Define();
// This causes an error!
bdiss.Define();
```

`Title` is defined for `Book`, so no error is thrown there. `Define()`, however, is not defined for the `Book` class, so we can't use it with `Book` references.

### ☑Instructions

**1.**

This code contains two errors! Delete or comment out the lines causing the errors.

Hint

Each error is caused because a reference is using a member not defined in the reference's type.

For example, `bdiss` is a `Book` type reference and `CurrentPage` is not a property defined in the `Book` class. You can check **Book.cs** to be sure.

```
bdiss.CurrentPage = 43;
```