

Assert Classes Save a Lot of Time



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Module Overview



- **Learn about classes to help you test**
 - **Assert**
 - **StringAssert**
 - **CollectionAssert**
- **Save you time**
- **Don't have to write your own assertions**

Assert Class

Positive

- **AreEqual**
- **AreSame**
- **IsTrue**
- **IsInstanceOf**
- **IsNull**

Negative

- **AreNotEqual**
- **AreNotSame**
- **IsFalse**
- **IsNotInstanceOf**
- **IsNotNull**

Other

- **Fail**
- **Inconclusive**

Assert Class

Check value

```
IsTrue(fromCall);
```

Add message

```
IsTrue(fromCall,  
    "Value is not true");
```

Use string.Format()

```
IsTrue(fromCall,  
    "{0} is not true", value);
```

Demo



Add messages for output

Checking String Equality

Case sensitive

```
Assert.AreEqual("Paul", "paul");
```

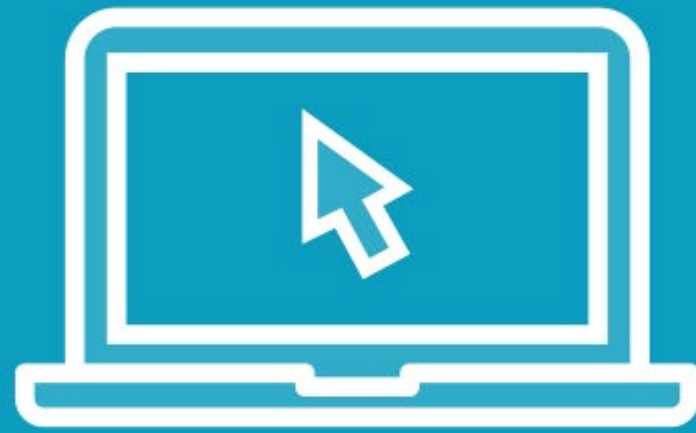
Case insensitive

```
Assert.AreEqual("Paul", "paul", true);
```

Use Culture

```
Assert.AreEqual("Paul", "Paul",  
    CultureInfo object);
```

Demo



Checking string equality

Checking Object Types

**Object variables
point to same
object**

AreSame
AreNotSame

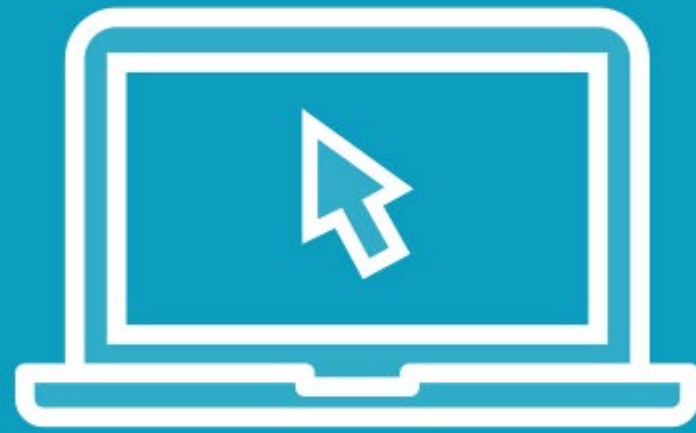
**Object variable is
specific type**

InstanceOfType
IsNotInstanceOfType

Null or not

IsNull
IsNotNull

Demo

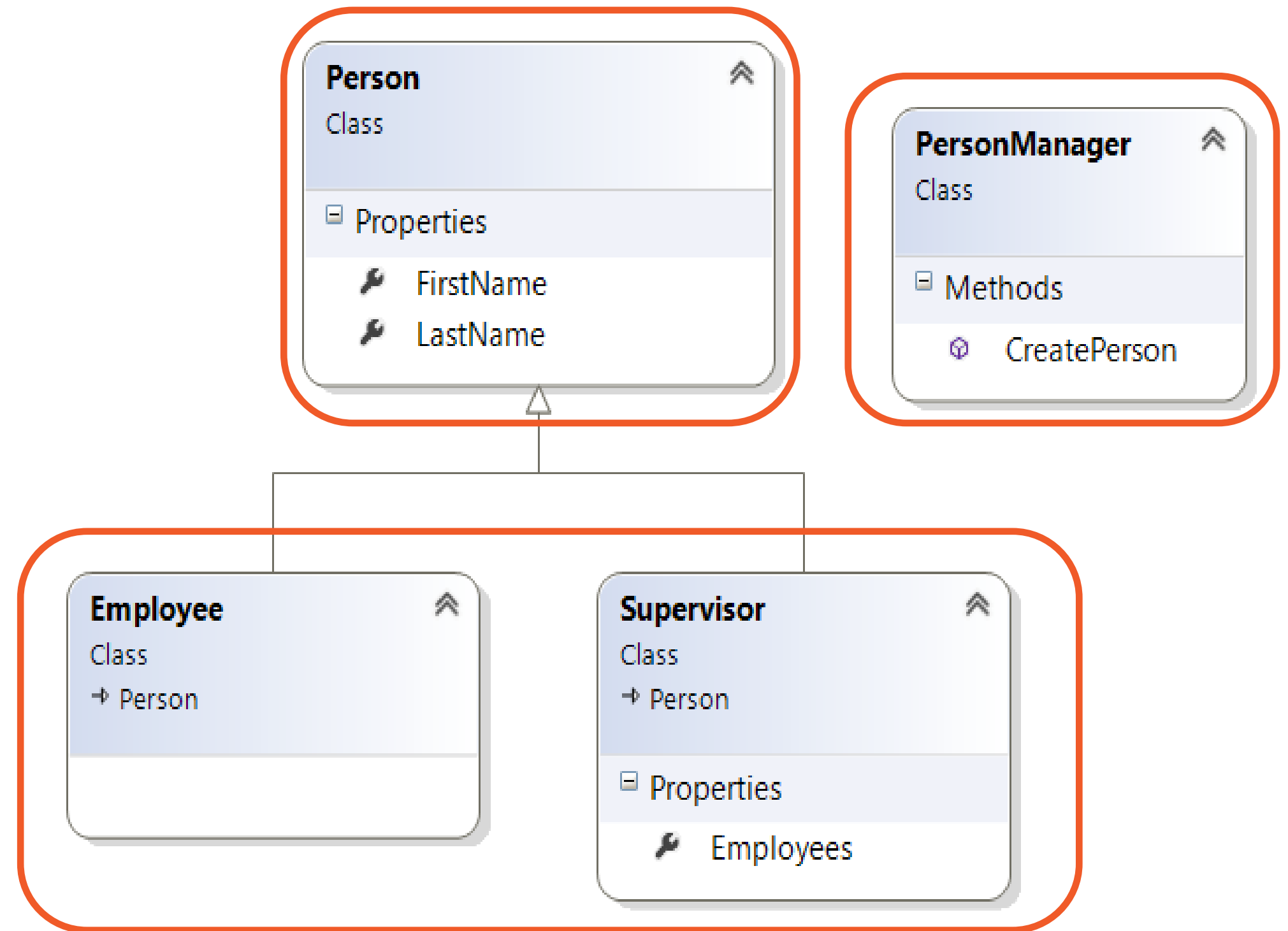


Checking object types

Create Person base class

Employee / Supervisor
inherit from Person

PersonManager creates
instance of either
Employee or Supervisor



```
public Person CreatePerson(  
    string first,  
    string last,  
    bool isSupervisor) {
```

```
    Person ret = null;
```

```
    if (!string.IsNullOrEmpty(first)) {  
        if (isSupervisor) {  
            ret = new Supervisor();  
        }  
        else {  
            ret = new Employee();  
        }  
    }
```

```
    // Assign variables  
    ret.FirstName = first;  
    ret.LastName = last;  
}
```

```
    return ret;  
}
```

- ◀ **CreatePerson method accepts 3 parameters, returns a Person object**
- ◀ **Create a person variable**
- ◀ **If first name is not passed, a null is returned**
- ◀ **Create a Supervisor or Employee based on isSupervisor parameter**
- ◀ **Assign properties to parameters**
- ◀ **Return new object**

Demo



IsInstanceOf

IsNull

StringAssert Class

RegEx

- **Matches**
- **DoesNotMatch**

Contains

- **Contains**

Starts/ends with

- **StartsWith**
- **EndsWith**

Demo



StringAssert class

CollectionAssert Class

Equality

- **AreEqual**
- **AreNotEqual**
- **Must be in the same order**

Equivalency

- **AreEquivalent**
- **AreNotEquivalent**
- **Can be in any order**

Comparer

- **For object collections**
- **Create your own comparer method**

CollectionAssert Class

What's in a collection

- **AllItemsAreInstancesOfType**
- **AllItemsAreNot Null**
- **AllItemsAre Unique**

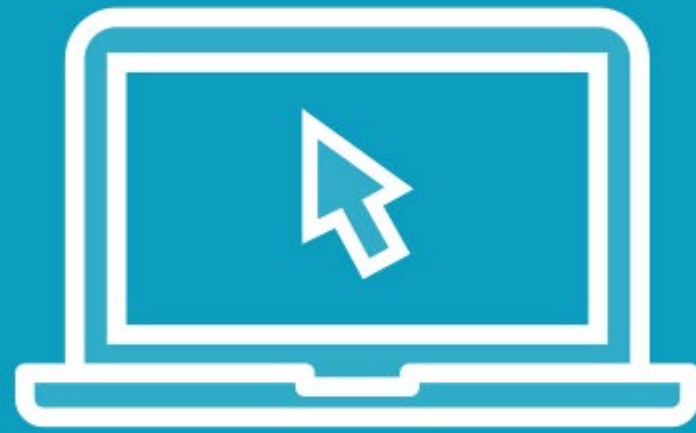
Contains

- **Contains**
- **DoesNotContain**

Subset

- **IsSubsetOf**
- **IsNotSubsetOf**

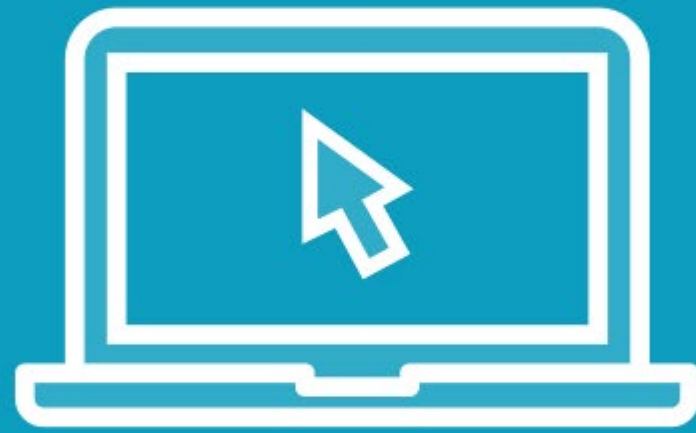
Demo



CollectionAssert class

- Equality
- TypeOf

Demo



CollectionAssert class

- Equivalency
- Using a comparer class

Module Summary



- **Many ways to test success or failure**
- **Can pass in your own messages**
- **Great string handling**
- **Great collection handling**

Up Next:

Consolidate Tests by Making Them Data-Driven
