## Fake It Easy

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#### What it is

Amazingly simple mocking framework

Created by Patrik Hägne

https://github.com/FakeItEasy/FakeItEasy http://www.nuget.org/packages/FakeItEasy

## Concepts

Everything is a fake

Setups are put on a stack

#### **Default behavior**

Default values for primitive types Fakes for complex types

#### How to use it

Install-Package FakeItEasy

```
Interface f = A.Fake<Interface>();
A.CallTo(() => f.GetValue()).Returns(5);
A.CallTo(() => f.DoIt()).MustHaveHappened();
```

#### Create fakes

```
Interface f = A.Fake<Interface>();

IList<Interface> fakes =
    A.CollectionOfFake<Interface>(3);
```

### Setup (1)

```
f.Property = 5;
A.CallTo(() => f.ReadOnly).Returns(8);
A.CallTo(() => f.GetValue()).Returns(13);
```

### Setup (2)

```
A.CallTo(() => f.GetValue())
  .ReturnsNextFromSequence(5, 8, 13, 21);
int i = 0;
A.CallTo(() => f.GetValue())
  .ReturnsLazily(() => i++);
```

#### Assert (1)

```
A.CallTo(() => f.DoIt()).MustHaveHappened();
A.CallTo(() => f.DoIt())
.MustHaveHappened(Repeated.AtLeast.Once);

A.CallTo(() => f.DoIt()).MustNotHaveHappened();
A.CallTo(() => f.DoIt())
.MustHaveHappened(Repeated.Never);
```

#### Assert (2)

```
A.CallTo(() => f.DoIt())
 .MustHaveHappened(Repeated.AtLeast.Twice);
A.CallTo(() => f.DoIt())
 .MustHaveHappened(Repeated.Exactly.Times(3));
A.CallTo(() => f.DoIt())
 .MustHaveHappened(Repeated.NoMoreThan.Once);
```

# Argument Matching (1)

```
A.CallTo(() => f.Request(3))
.Returns(5);

A.CallTo(() => f.Request(3))
.MustHaveHappened();
```

## Argument Matching (2)

```
A<int>.
A<int>.Ignored
A<int>.That.Matches(i => i == 5)
A<string>.That.StartsWith("g")
A<string>.That.Not.IsEmpty()
```

#### Raise events

```
f.Trigger += Raise.WithEmpty().Now;

f.Trigger += Raise.With(new EventArgs()).Now;

f.Trigger +=
    Raise.With(this, new EventArgs()).Now;
```

## Access invocation arguments (1)

```
A.CallTo(() => f.Request(A<int>._))
.ReturnsLazily((int i) => i + 5);
```

Supports up to 4 arguments Signature has to match

### Access invocation arguments (2)

```
A.CallTo(() => f.Request(A<int>._))
.ReturnsLazily(call =>
    call.GetArgument<int>(0) + 5);
```

#### Invocation actions (1)

```
A.CallTo(() => f.Request(A<int>._))
.Invokes(() => i++);

A.CallTo(() => f.Request(A<int>._))
.Invokes((int a) => i += a);
```

#### Invocation actions (2)

```
A.CallTo(() => f.Request(A<int>._))
.Invokes(call => i +=
    call.GetArgument<int>(0));
```

### Throw exceptions

```
A.CallTo(() => f.GetValue())
 .Throws<Exception>();
A.CallTo(() => f.GetValue())
 .Throws(new Exception());
A.CallTo(() => f.Request(A<int>. ))
 .Throws((int i) => new MyException(i));
```

#### The winner fakes it all

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Latest release from NuGet Install-Package FakeItEasy

Latest pre release from CodeBetter
Feed url: http://teamcity.codebetter.com/guestAuth/app/nuget/v1/FeedService.svc

Install-Package FakeItEasy -IncludePrerelease