Namespace NullaryThunk.Funky.Core.Options

Classes

Nothing<T>

An Option<T> that has no meaningful value.

O

OptionFunctions

Something<T>

An Option<T> that has a meaningful value.

Interfaces

ISomething<T>

An Option<T> that has a meaningful value.

Nothing

An object with no meaningful value. Represents the absence of a value.

Option<T>

Represents the possibility of a `T`. An Option<T> can be either Something<T> or Nothing<T>. If it is a Something<T> then it contains a value of . Use pattern matching to match on an Option<T>

Something

An Option<T> that has no meaningful value.

Interface ISomething<T>

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

An Option<T> that has a meaningful value.

```
public interface ISomething<out T> : Option<T>, Something
```

Type Parameters

T

The type of the meaningful value contained within.

Extension Methods

O.ToSomething<T>(T) , OptionFunctions.SomethingOr<T>(Option<T>, T) , OptionFunctions.SomethingOr<T, R>(Option<T>, Func<T, R>, R)

Properties

Value

```
T Value { get; }
```

Property Value

T

Interface Nothing

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

An object with no meaningful value. Represents the absence of a value.

```
public interface Nothing
```

Extension Methods

O.ToSomething<T>(T)

Class Nothing<T>

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

An Option<T> that has no meaningful value.

```
public record Nothing<T> : Option<T>, Nothing, IEquatable<Nothing<T>>
```

Type Parameters

T

The type of the meaningful value.

Inheritance

object ← Nothing<T>

Implements

Option<T>, Nothing, IEquatable<Nothing<T>>

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() , object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Extension Methods

O.ToSomething<T>(T) , OptionFunctions.SomethingOr<T>(Option<T>, T) , OptionFunctions.SomethingOr<T, R>(Option<T>, Func<T, R>, R)

Class O

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

```
public static class O
```

Inheritance

object ← O

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() , object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Methods

Nothing<T>()

Creates a Nothing<T>().

```
public static Nothing<T> Nothing<T>()
```

Returns

Nothing<T>

An instance of Nothing<T>()

Type Parameters

T

The underlying type of the meaningful value.

Somethings<T>(IEnumerable<Option<T>>)

Extracts the underlying values from a sequence of Option<T> items, returning only the values wrapped in Something<T>

```
public static IEnumerable<T> Somethings<T>(this IEnumerable<Option<T>> options)
```

Parameters

`options` IEnumerable<Option<T>>

A sequence of optional values

Returns

IEnumerable<T>

A sequence of values.

Type Parameters

`T`

The underlying type of the meaningful value.

ToSomething<T>(T)

Lifts a meaningful value into a Something<T>.

```
public static Something<T> ToSomething<T>(this T value)
```

Parameters

`value` T

The meaningful value.

Returns

Something<T>

A Something<T> containing the meaningful value.

Type Parameters

T

The type of the meaningful value.

Class OptionFunctions

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

```
public static class OptionFunctions
```

Inheritance

object ← OptionFunctions

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() , object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Methods

SomethingOr<T>(Option<T>, T)

```
public static T SomethingOr<T>(this Option<T> opt, T ifNone)
```

Parameters

opt Option<T>

ifNone T

Returns

T

Type Parameters

T

SomethingOr<T, R>(Option<T>, Func<T, R>, R)

```
public static R SomethingOr<T, R>(this Option<T> opt, Func<T, R> mapper, R ifNone)
```

Parameters

`opt` Option<T>

`mapper` Func<T, R>

`ifNone` R

Returns

R

Type Parameters

`T`

`R`

Interface Option<T>

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

Represents the possibility of a `T`. An Option<T> can be either Something<T> or Nothing<T>. If it is a Something<T> then it contains a value of . Use pattern matching to match on an Option<T>

```
public interface Option<out T>
```

Type Parameters

`T`

The underlying value type.

Extension Methods

O.ToSomething<T>(T) , OptionFunctions.SomethingOr<T>(Option<T>, T) , OptionFunctions.SomethingOr<T, R>(Option<T>, Func<T, R>, R)

Interface Something

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

An Option<T> that has no meaningful value.

```
public interface Something
```

Extension Methods

O.ToSomething<T>(T)

Class Something<T>

Namespace: NullaryThunk.Funky.Core.Options

Assembly: NullaryThunk.Funky.Core.dll

An Option<T> that has a meaningful value.

```
public record Something<T> : ISomething<T>, Option<T>,
Something, IEquatable<Something<T>>
```

Type Parameters

T

The type of the meaningful value.

Inheritance

object ← Something<T>

Implements

ISomething<T>, Option<T>, Something, IEquatable<Something<T>>

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() , object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Extension Methods

OptionFunctions.SomethingOr<T>(Option<T>, T) , OptionFunctions.SomethingOr<T, R>(Option<T>, Func<T, R>, R) , O.ToSomething<T>(T)

Constructors

Something(T)

An Option<T> that has a meaningful value.

```
public Something(T Value)
```

Parameters

`Value` T

The meaningful value.

Properties

Value

The meaningful value.

```
public T Value { get; init; }
```

Property Value

T

Operators

implicit operator Something<T>(T)

Implicitly converts a value of type `T` into a Something<T>.

```
public static implicit operator Something<T>(T value)
```

Parameters

`value` T

The value to wrap.

Returns

Something<T>

A Something<T> containing the provided value.

Namespace NullaryThunk.Funky.Core.Tests.Options

Classes

OptionGenerators

OptionTests

SomethingOrTests

Class OptionGenerators

Namespace: NullaryThunk.Funky.Core.Tests.Options

Assembly: NullaryThunk.Funky.Core.Tests.dll

```
public static class OptionGenerators
```

Inheritance

object ← OptionGenerators

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() , object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Properties

Integers

```
public static Gen<int> Integers { get; }
```

Property Value

Gen<int>

Methods

OptionOfInt()

```
public static Arbitrary<(int Value, Option<int> Option)> OptionOfInt()
```

Returns

Arbitrary<(int Value, Option<int> Option)>

OptionsOfInt()

```
public static Arbitrary<Option<int>[]> OptionsOfInt()
```

Returns

Arbitrary<Option<int>[]>

Class OptionTests

Namespace: NullaryThunk.Funky.Core.Tests.Options

Assembly: NullaryThunk.Funky.Core.Tests.dll

```
[TestFixture]
public class OptionTests
```

Inheritance

object ← OptionTests

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() , object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Extension Methods

O.ToSomething<T>(T)

Methods

ArbitraryOptionIntTest()

```
[Test]
public static void ArbitraryOptionIntTest()
```

CastingIntToSomethingHasSameValueAsOriginalInt()

```
[Test]
public static void CastingIntToSomethingHasSameValueAsOriginalInt()
```

SomethingsHasAllSomethingsFromOriginal()

```
[Test]
```

```
public static void SomethingsHasAllSomethingsFromOriginal()
```

Class SomethingOrTests

Namespace: NullaryThunk.Funky.Core.Tests.Options

Assembly: NullaryThunk.Funky.Core.Tests.dll

```
[TestFixture]
public class SomethingOrTests
```

Inheritance

object ← SomethingOrTests

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() , object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Extension Methods

O.ToSomething<T>(T)

Methods

Nothing_Yields_Value_Of_IfNone(int, int)

```
[Test]
public static void Nothing_Yields_Value_Of_IfNone(int value, int ifNone)
```

Parameters

value int

ifNone int

Something_Yields_Value_Of_Something(int, int)

```
[Test]
public static void Something_Yields_Value_Of_Something(int value, int ifNone)
```

Parameters

`value` int

`ifNone` int

With_Nothing_Nullary_Yields_Same_As_Without(int, int)

```
[Test]
public static void With_Nothing_Nullary_Yields_Same_As_Without(int value,
int ifNone)
```

Parameters

`value` int

`ifNone` int

With_Something_Nullary_Yields_Same_As_Without(int, int)

```
[Test]
public static void With_Something_Nullary_Yields_Same_As_Without(int value,
int ifNone)
```

Parameters

`value` int

`ifNone` int