

# Foldable



# Foldable

Higher-kinded TC with folding methods

```
def foldLeft[A, B](fa: F[A], b: B)(f: (B, A) => B): B
```

Folding right is stack-safe, regardless of container

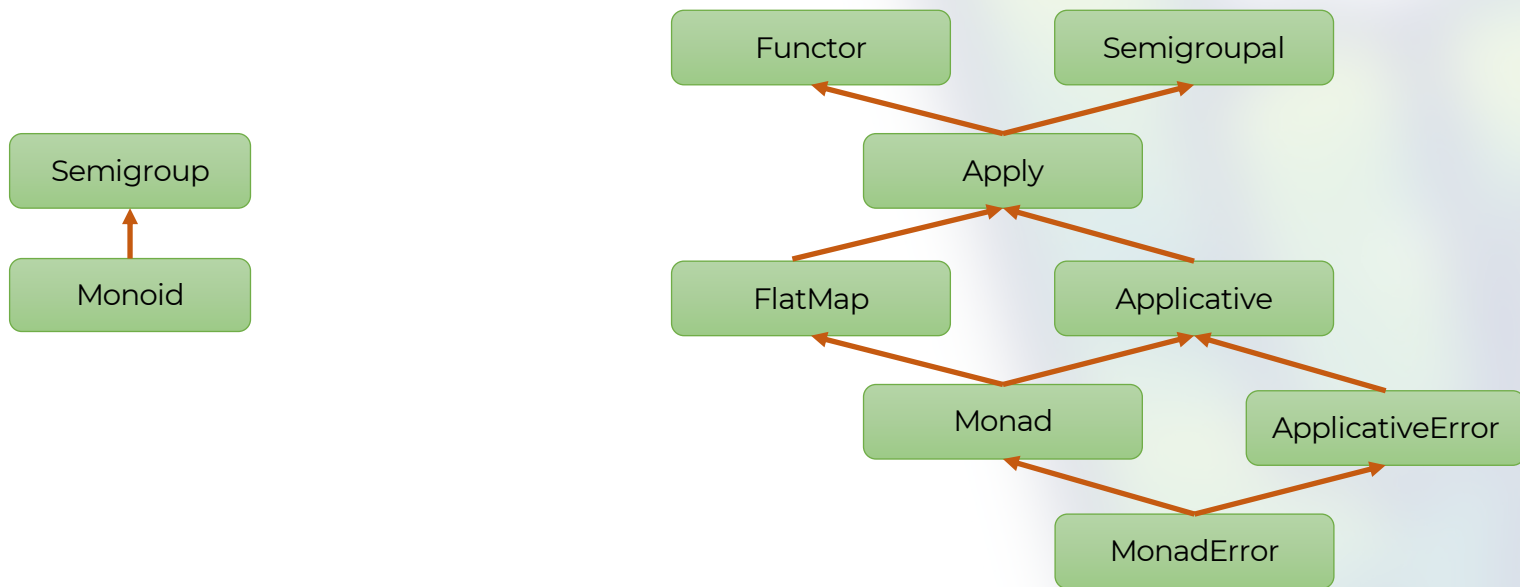
```
def foldRight[A, B](fa: F[A], lb: Eval[B])(f: (A, Eval[B]) => Eval[B]): Eval[B]
```

Useful for

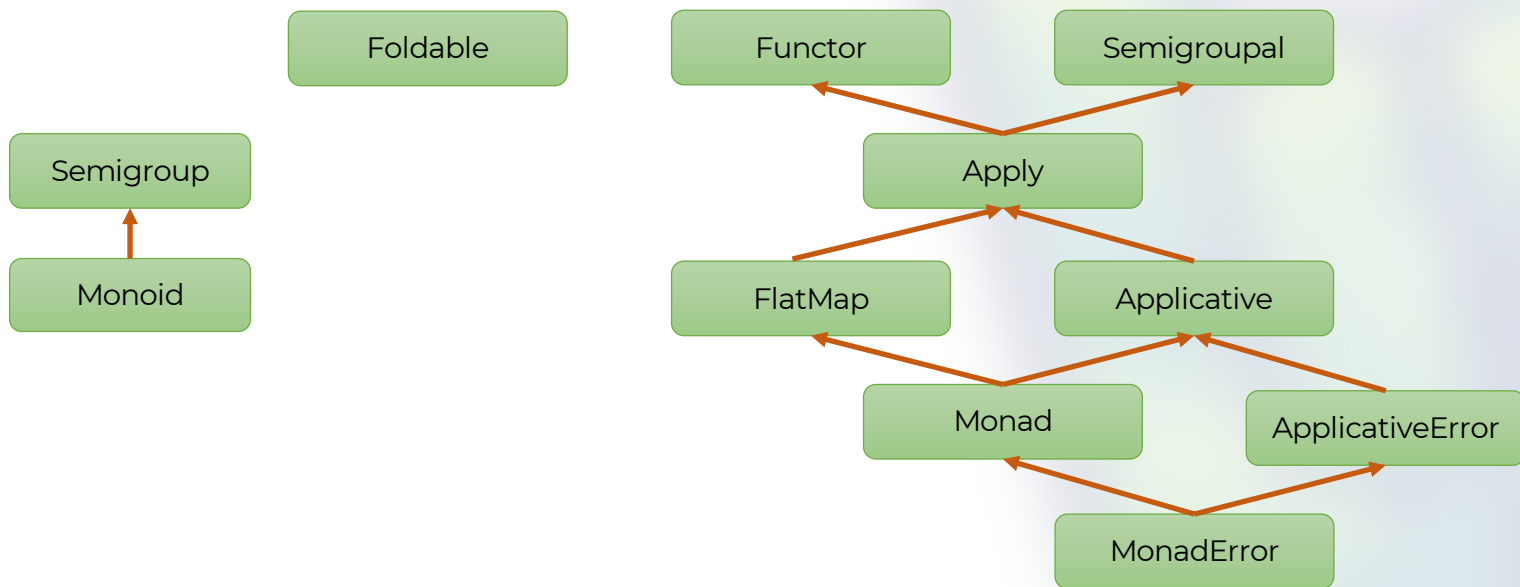
- convenience
- general APIs applicable to any foldable container

```
// extension methods
import cats.syntax.foldable._
val sum3 = List(1,2,3).combineAll // requires Foldable[List], Monoid[Int]
val mappedConcat2 = List(1,2,3).foldMap(_.toString) // requires Foldable[List], Monoid[String]
```

# Cats TC Hierarchy



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**Cats rock**

