

Semigroups



Semigroups

Type class that can combine two values of the same type

```
import cats.Semigroup
import cats.instances.int._

val naturalIntSemigroup = Semigroup[Int] // fetches the implicit instance
val intCombination = naturalIntSemigroup.combine(2, 45) // the fundamental API
```

```
import cats.syntax.semigroup._
val anIntCombination = 2 |+| 3 // dictated by the Semigroup[Int]
```

Useful for general APIs

```
def reduceList[T : Semigroup](list: List[T]): T = list.reduce(_ |+| _)
```

Use cases: data structures meant to be combined

- data integration & big data processing
- eventual consistency & distributed computing

Cats rock

