



GHG.Generics

Normal Data types

Generic Representation





T

Rep T x

to

from

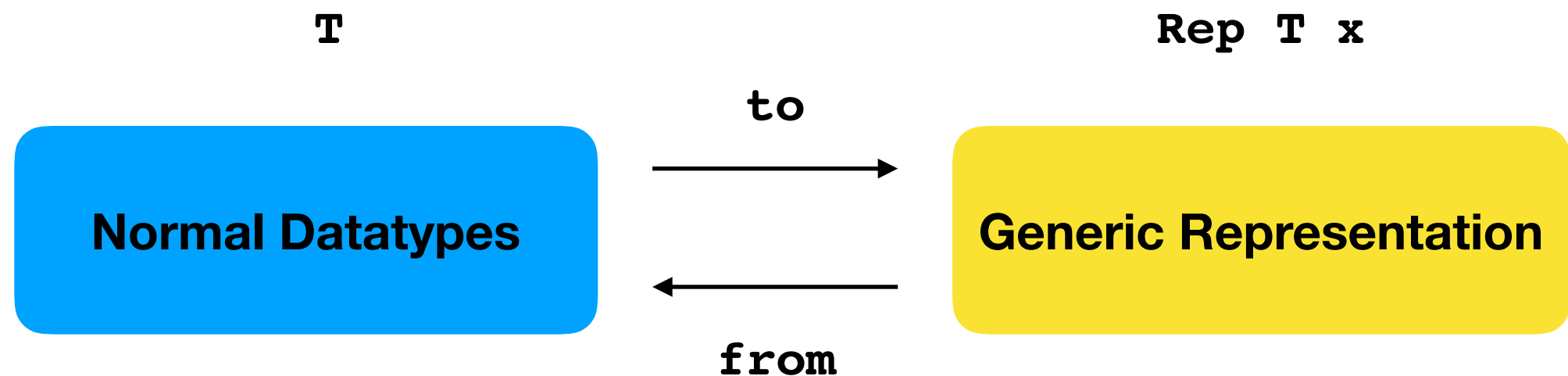
class Generic a where

type family Rep a :: * → *

from :: a → Rep a x

to :: Rep a x → a

GHC.Generics



```
class Generic a where
  type family Rep a :: * -> *
  from :: a -> Rep a x
  to :: Rep a x -> a
```

GHC.Generics

Empty Types **data v1 p**

Unary Types `data U1 p = U1`

```
Product Types      data  (:+:)  f  g  p  =  L1  (f  p)
                                     |  R1  (g  p)
```

Sum Types **data** (**:*********:**) **f g p = (f p) :*********:** (**g p**)

Constant Types **newtype** K1 i c p = K1 { unK1 :: c }

Structure becomes evident by inspecting the type