GHC.Generics

Normal Datatypes

Generic Representation

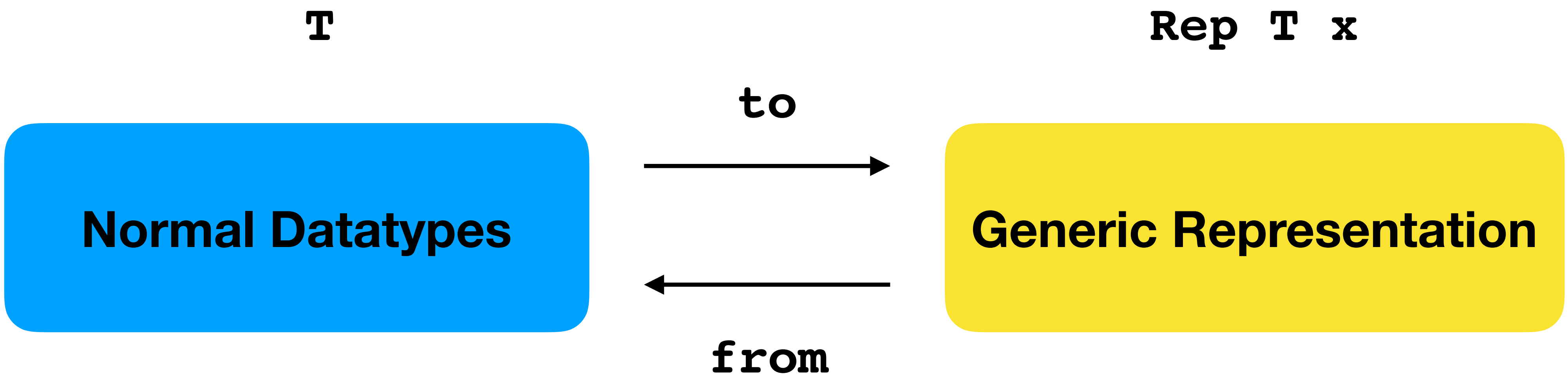
T Rep T x

to

from

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

GHC.Generics



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GHC.Generics

<table>
<tr><td>Empty Types</td><td>data V1 p</td></tr>
<tr><td>Unary Types</td><td>data U1 p = U1</td></tr>
<tr><td>Sum Types</td><td>data (:+:) f g p = L1 (f p)
| R1 (g p)</td></tr>
<tr><td>Product Types</td><td>data (:*:) f g p = (f p) :*: (g p)</td></tr>
<tr><td>Constant Types</td><td>newtype K1 i c p = K1 { unK1 :: c }</td></tr>
</table>

Structure becomes evident by inspecting the type