

Types start with an uppercase character, everything else with

a lowercase letter.

Type variables stay maximally general (polymorphic), being restricted only by the ways the type is used. Generics force you to anticipate the maximum generality yourself when declaring the generic type's bounds.

... an interface. It creates a contract that defines the behaviors of types of that class.

... its name consists of only special characters and is infix by default.

It indicates a class constraint. The left hand side indicates class membership/s (comma separated) of the type variables

used on the right hand side.

The type class for types that can be tested for equality.

IO and functions are not members.

The typeclass Ord defines a function compare which returns an Ordering, meaning either GT, EQ, or LT.

Its members can be presented as strings using the show function.

The Read typeclass defines read which does just that.

However, in order to know what type is desired, the result of read must be used in an expression or given a type annotation.

Haskell's term for a manifest type. It's not an annotation on a type in the sense of Scala's @specialized.

Haskell type annotations use the :: followed by the type.

They can be enumerated.

They have an upper and a lower bound: maxBound and minBound.

```
ghci> :t 0
0 :: (Num t) => t
ghci> :t maxBound
maxBound :: (Bounded a) => a
```

ghci> :t fromIntegral
fromIntegral :: (Integral a, Num b) => a -> b

With a where clause following the guards, containing variable assignments, one per line, aligned.

Named functions can be created, using the normal syntax.

In a where clause. Sometimes this gets nested into one helper helping another, and so on.

- let is an expression, while where is just a syntactic construct.
- where doesn't have such a tight scope, so its bindings are active across multiple guards.

By separating the assignments with semicolons.

let expressions, being far more powerful than Scala's midstream definitions.

... case expressions.

case expr of pat1 -> res1

patN -> resN