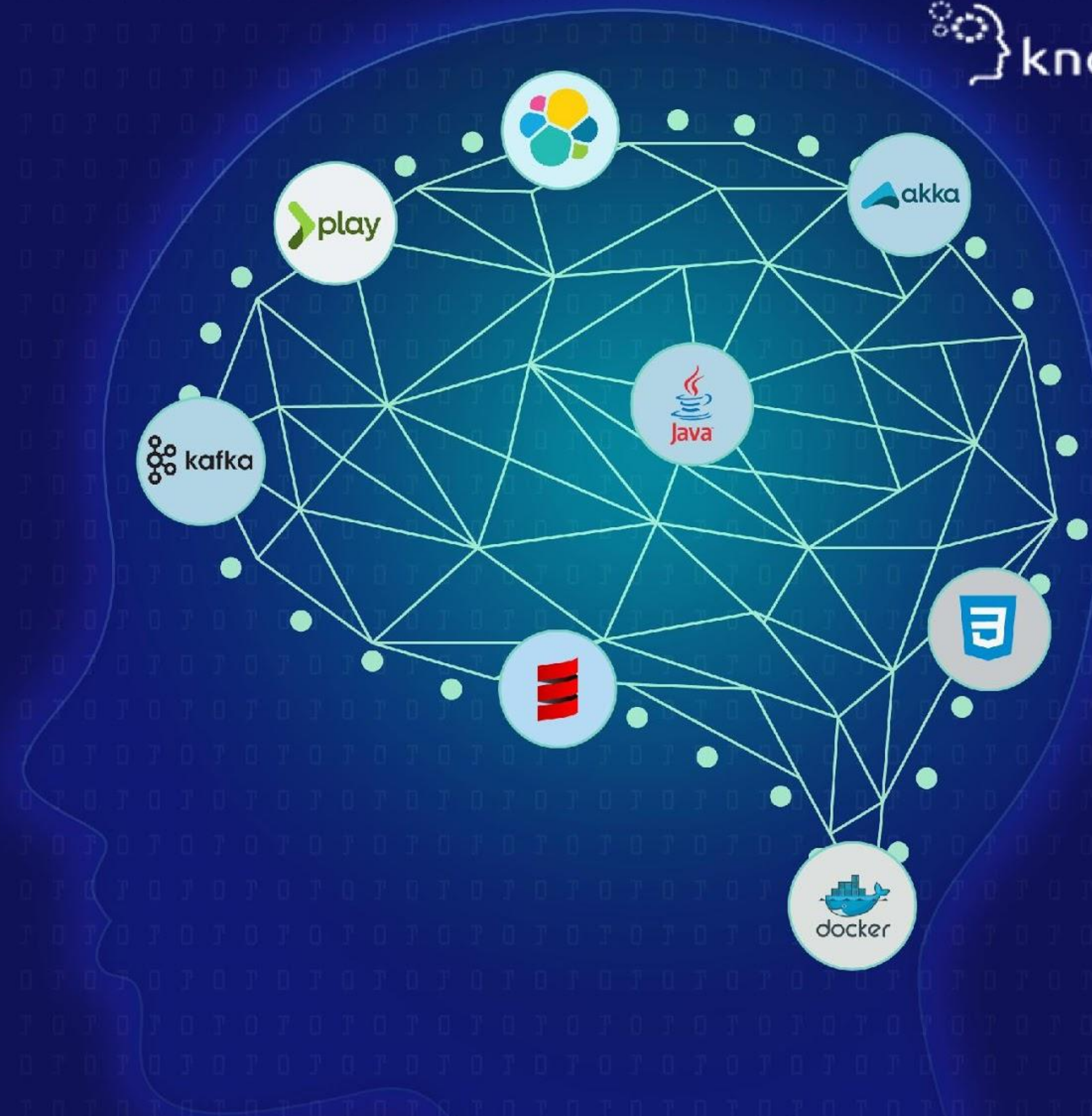# Numbers

Presented By:
Himanshu Gupta

Agenda

- Converting Between Numeric Types (Casting)
- Overriding the Default Numeric Type
- Replacements for ++ and −−

Converting Between Numeric Types (Casting)

Problem

We want to convert from one numeric type to another, such as from an Int to a Double.

Converting Between Numeric Types (Casting)

Solution

Instead of using the "cast" approach in Java, use the to*
methods that are available on all numeric types.

Converting Between Numeric Types (Casting)
Example

Demo

Overriding the Default Numeric Type

Problem

Scala automatically assigns types to numeric values when we assign them, and we need to override the default type it assigns as we create a numeric field.

Overriding the Default Numeric Type
Solution

The following examples show one way to override simple numeric types:

- val a = 1d

- val a = 0:Byte

- val a: Byte = 0

Overriding the Default Numeric Type
Example

Demo

Replacements for ++ and −−
Problem

We want to increment or decrement numbers using operators like ++ and −− that are available in other languages, but Scala doesn't have these operators.

Replacements for ++ and −−

Solution

Because val fields are immutable, they can't be incremented or decremented, but var Int fields can be mutated with the += and −= methods.

Replacements for ++ and −−
Example

Demo

Comparing Floating-Point Numbers

Problem

We need to compare two floating-point numbers, but as in some other programming languages, two floating-point numbers that should be equivalent may not be.

Comparing Floating-Point Numbers
Solution

As in Java and many other languages, we solve this problem by creating a method that lets we specify the precision for our comparison.

Comparing Floating-Point Numbers

Example

Demo

Formatting Currency
Problem

We want to format currency to control decimal places and commas, typically for printed output.

Formatting Currency
Solution

Use the *java.text.NumberFormat.getCurrencyInstance* formatter or *java.util.{Currency, Locale}*

Formatting Currency
Example

Demo

Q/A