

# PDXScala

- **Welcome!** Say hi, eat some pizza!
- Discount codes for upcoming conferences:
  - **LambdaConf** - Boulder, May 22-24  
Code: PDXScala, 10% off lowest price
  - **Scala Days** - San Francisco, March 16-18  
Code: scalaug, \$100 off

# **Nil, Null, null, Nothing, None, NaN**

Rob Norris • PDXScala • 17 Feb 2015

**Hello**

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# Hello

- Welcome to PDXScala
- Re-launching our Beginner Program
- If you don't understand something, stop me!
- If you have ideas for other beginner topics, let me know. We have a big list but can always use more.

**What is 0.0/0.0**



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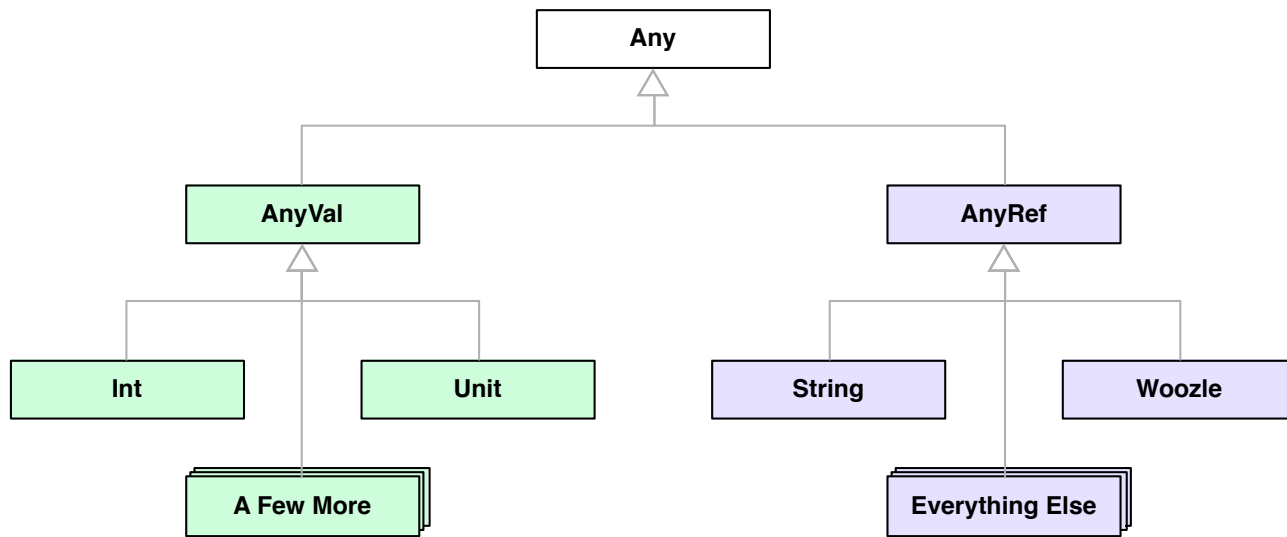
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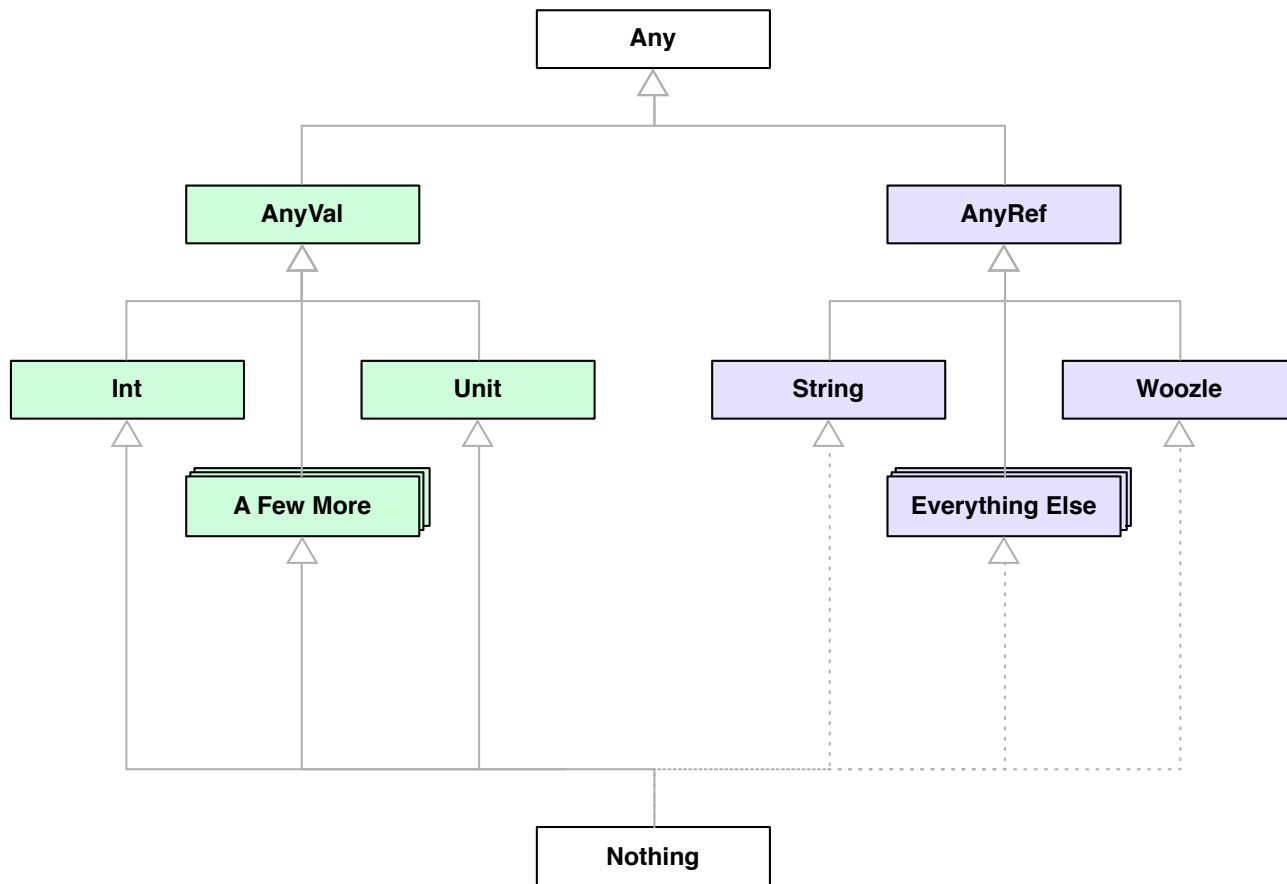
# ✓ NaN

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# Scala Type Hierarchy



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✓ **Nothing**



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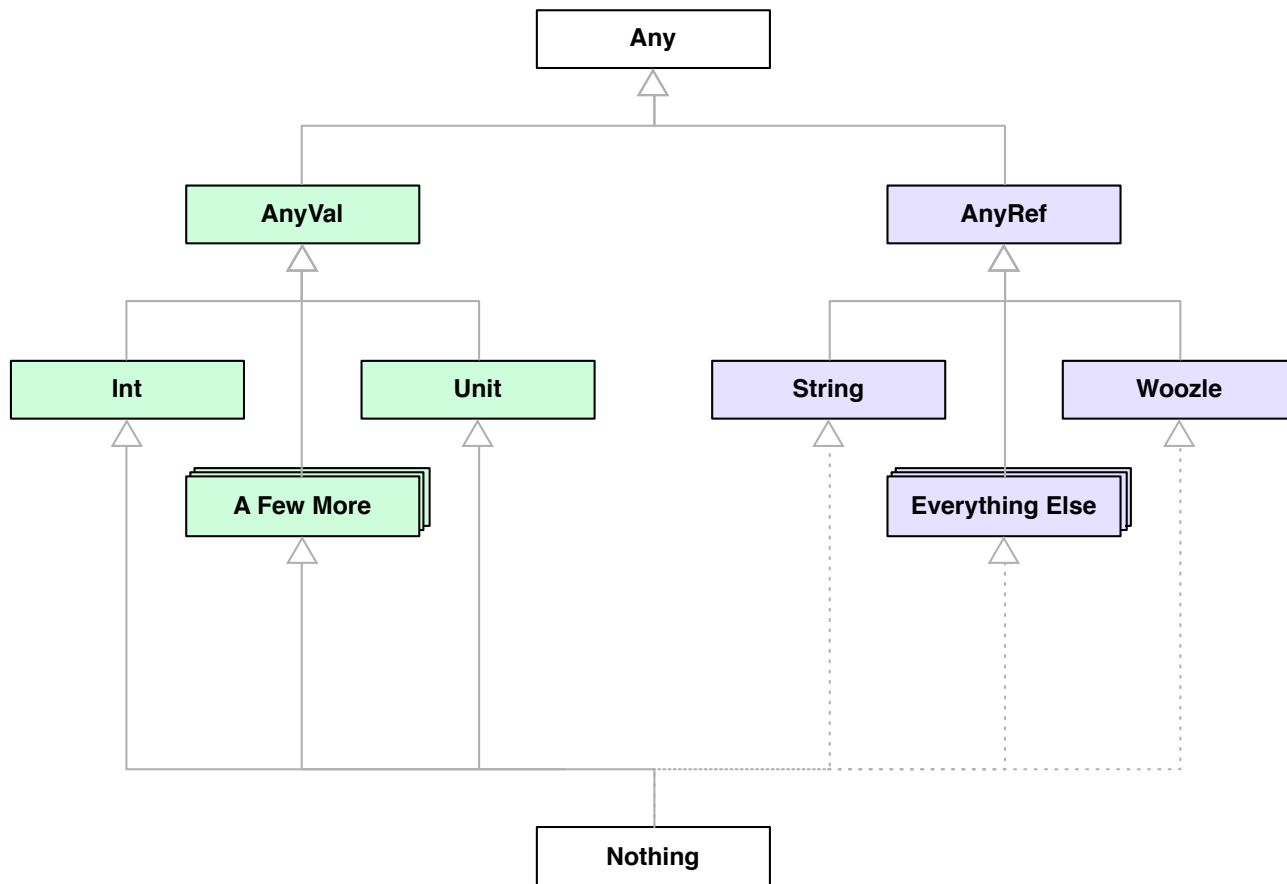
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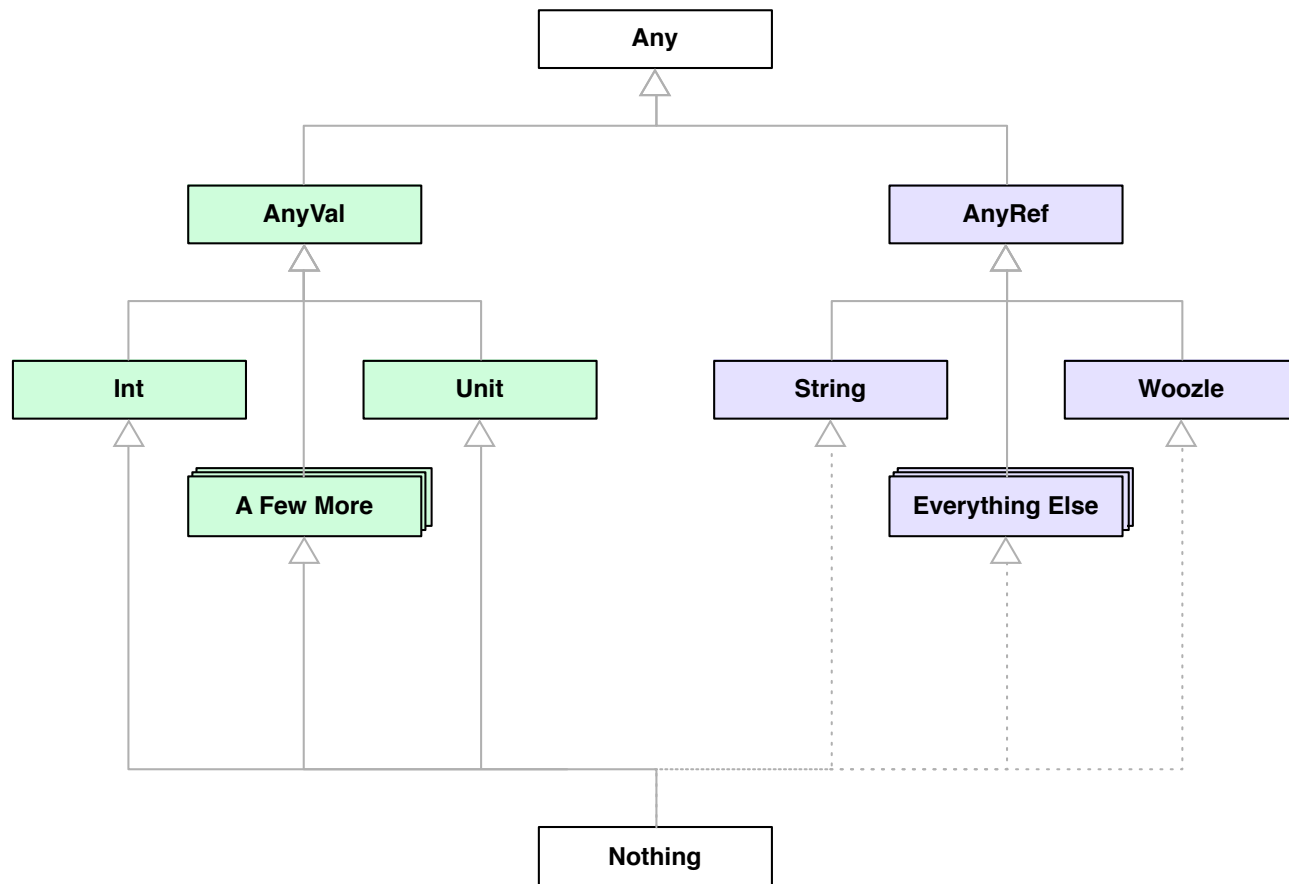
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- An expression with type Nothing **cannot return normally**.
- Ex: **throw**, **sys.exit**, infinite loop

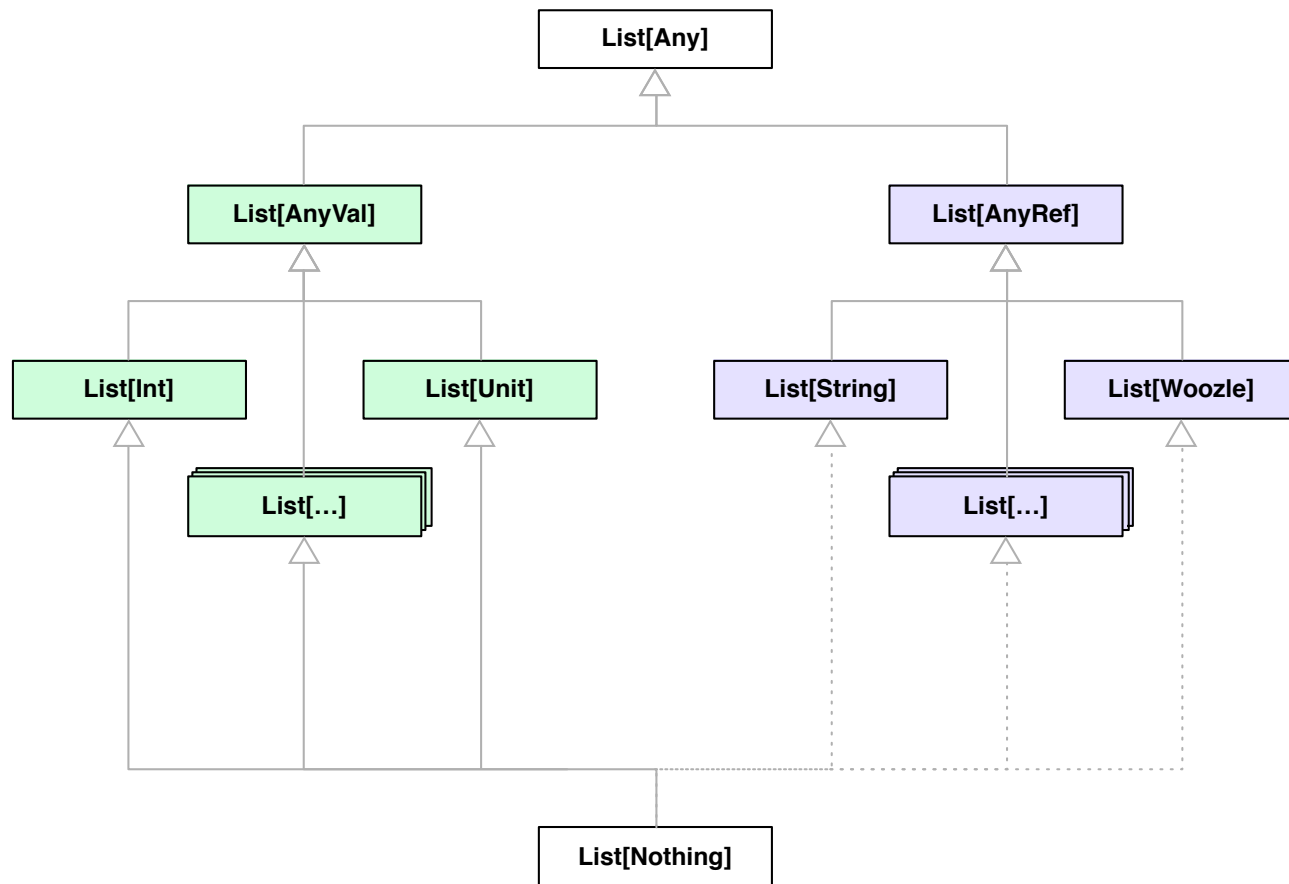
# Scala Type Hierarchy



# List[+A]



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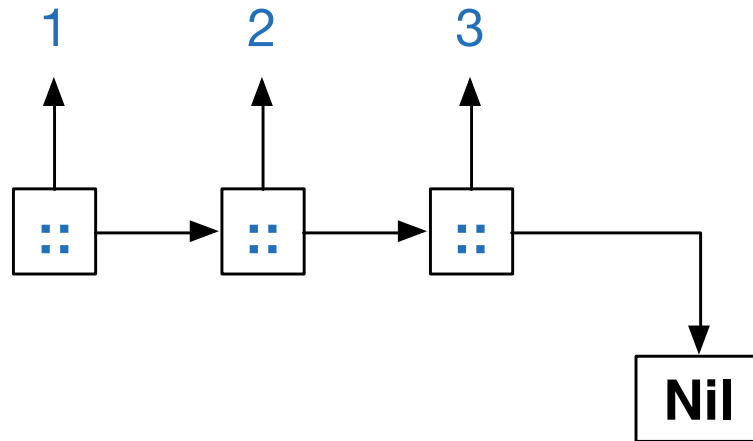
# ✓ Nil

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# What does it mean?

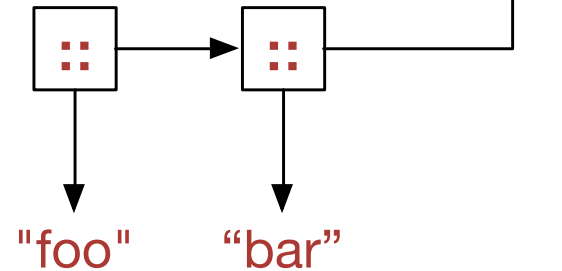
List(1, 2, 3)

1 :: 2 :: 3 :: Nil

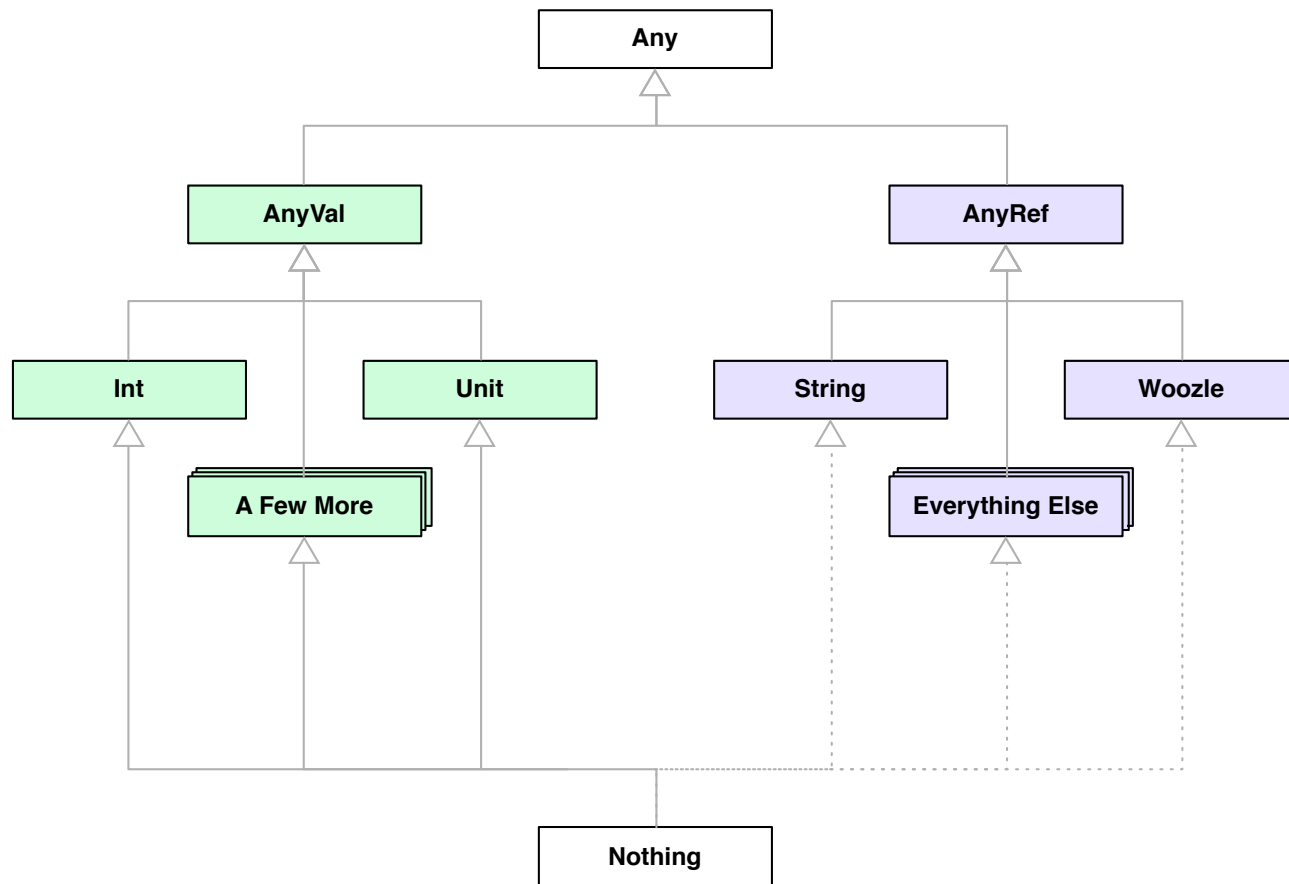


List("foo", "bar")

"foo" :: "bar" :: Nil

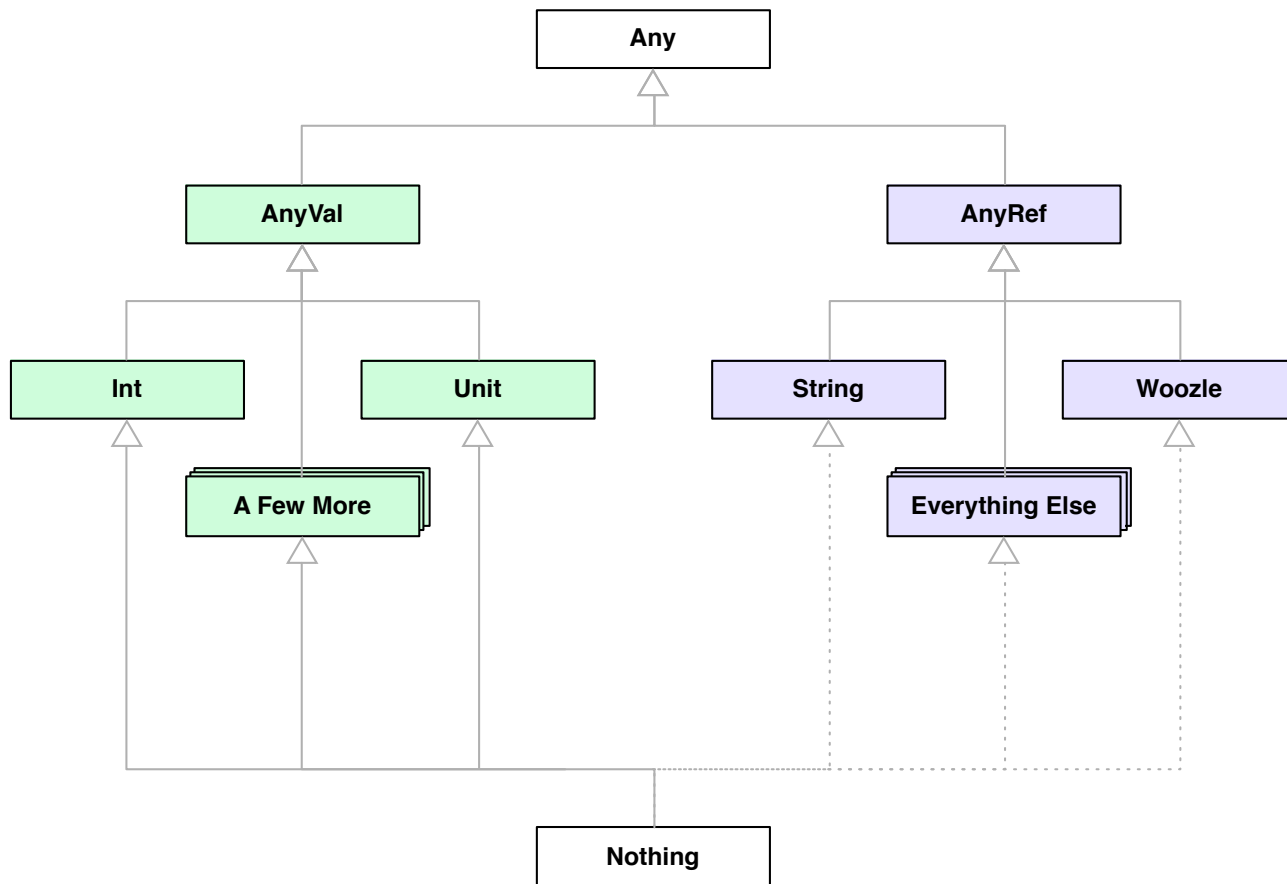


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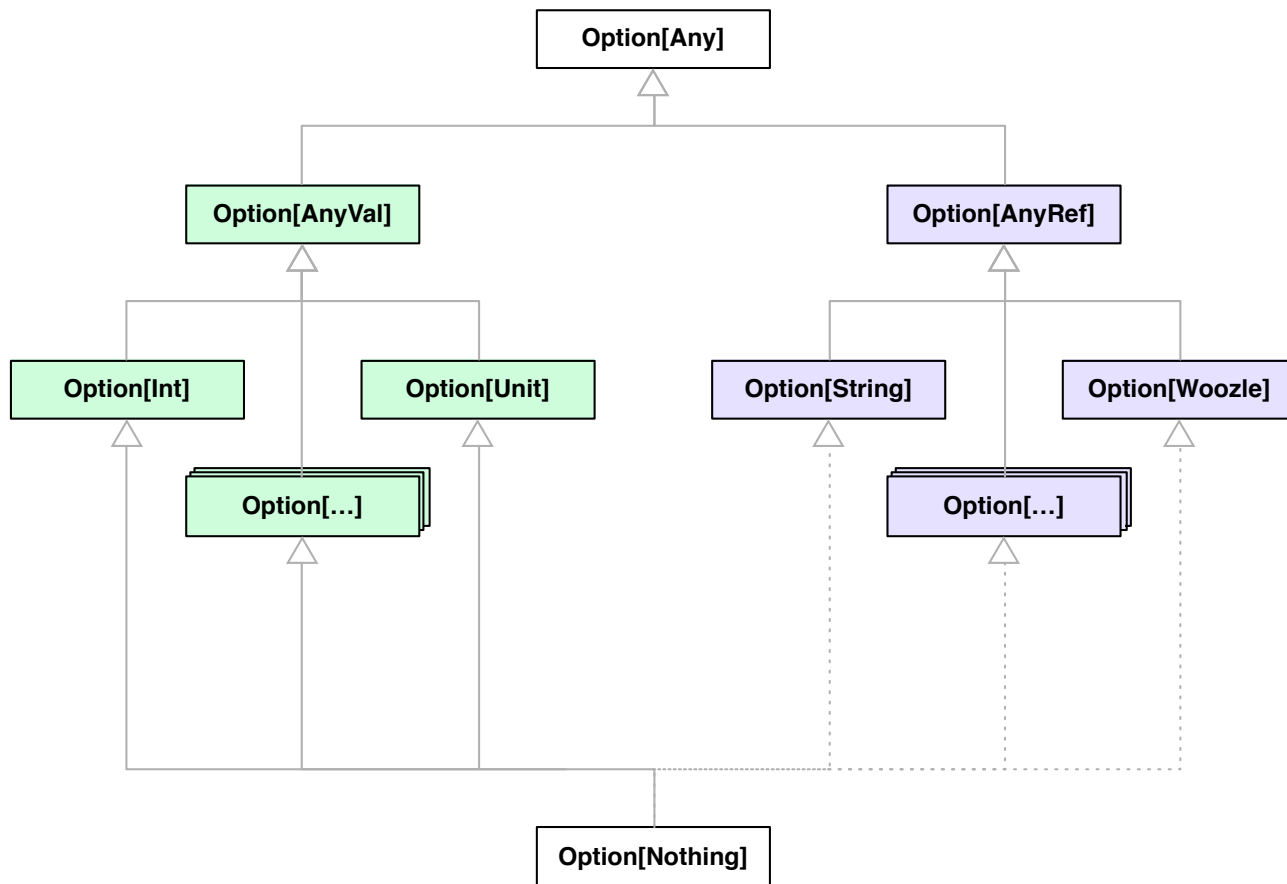




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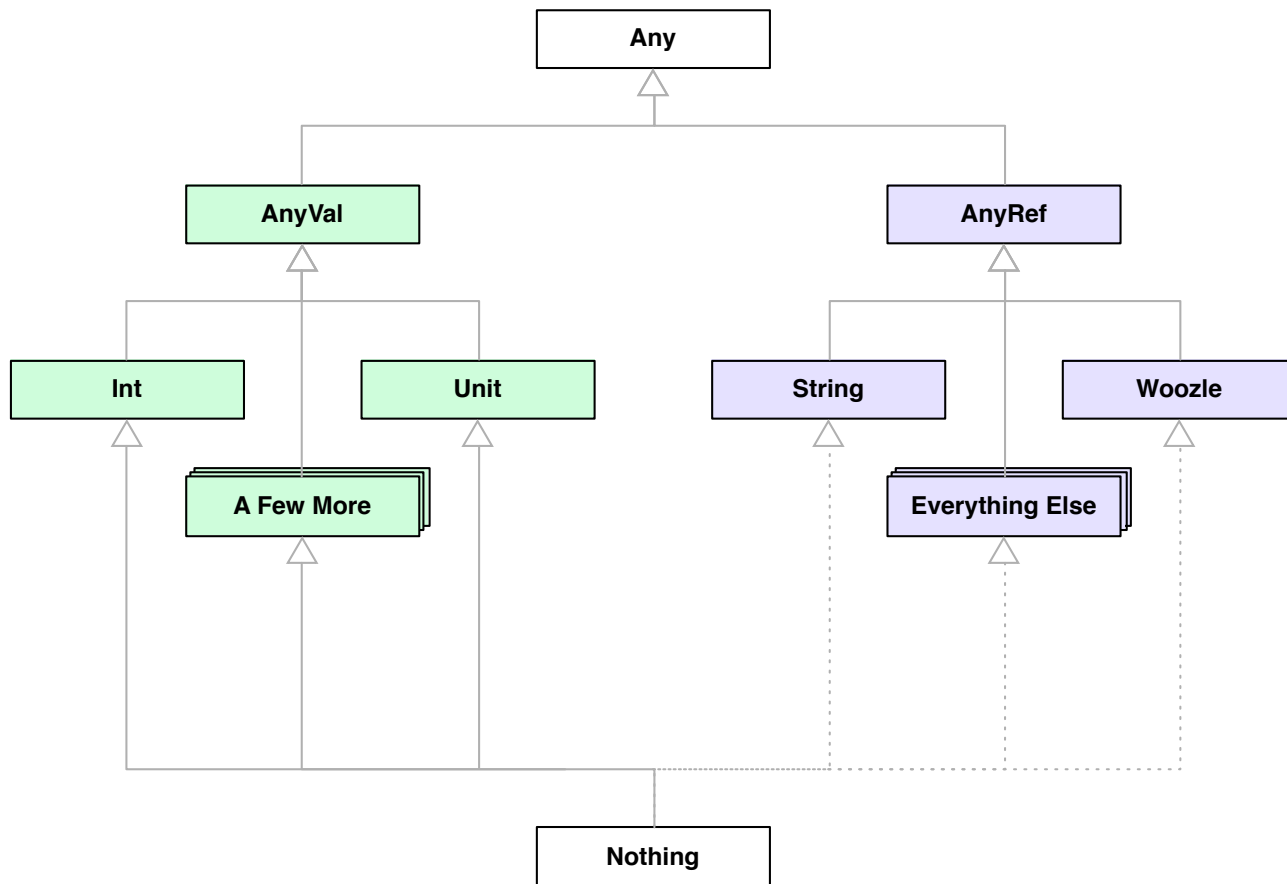
- It is a **subtype** of all Option[A]
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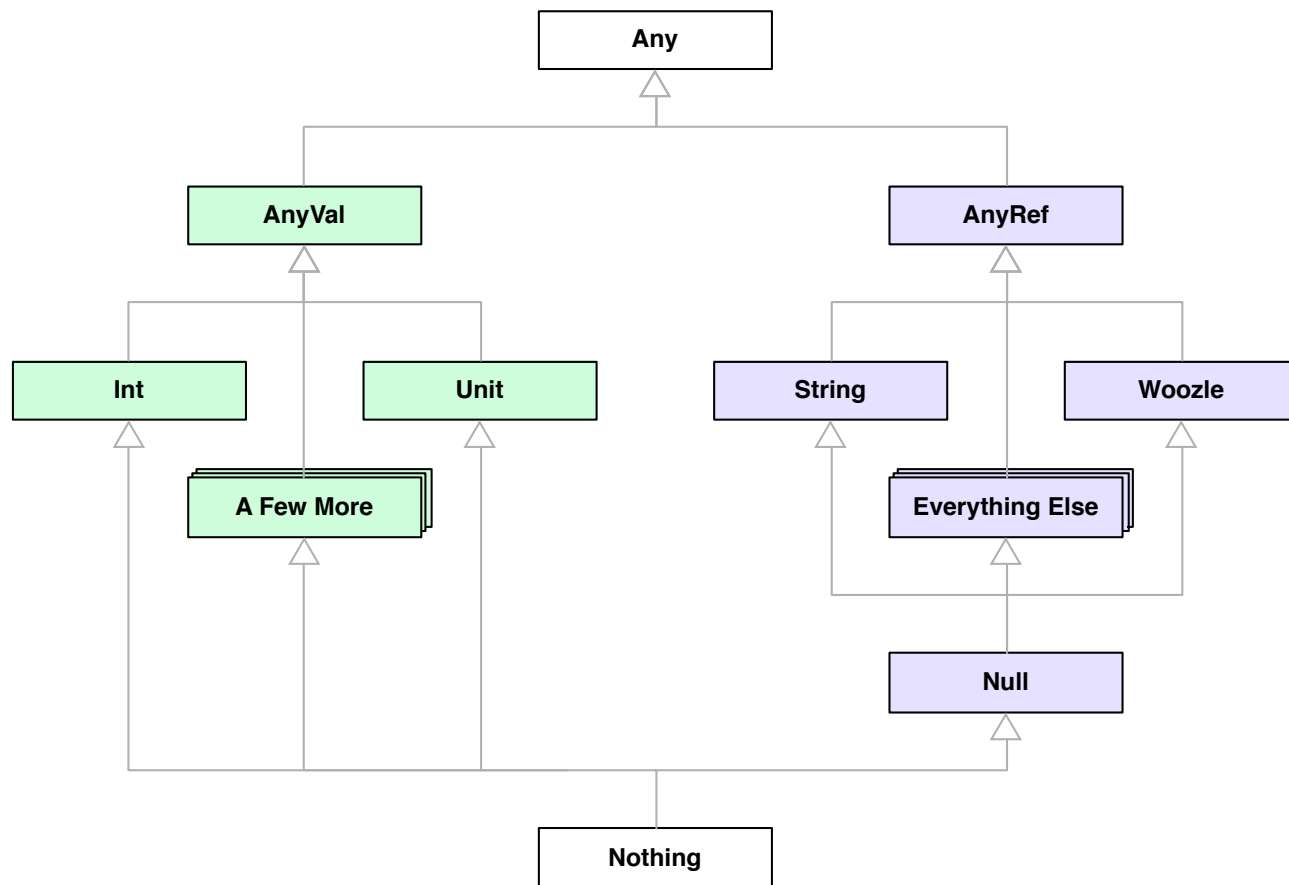
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# Scala Type Hierarchy



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- But it's called **null** (little-N).

# ✓ **Null** ... ✓ **null**

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- There is only one instance.
- But it's called **null** (little-N).



# Review

- **NaN** Not a Number
- **Nothing** The bottom type, also called  $\perp$
- **Nil** The one and only empty List
- **None** The one and only empty Option
- **Null** Almost-Bottom for Reference Types
- **null** The one and only Null value

# Thanks

- My name is Rob Norris
- I am @tpolecat on Twitter, IRC, and GitHub
- This presentation is available at [tpolecat.github.io](http://tpolecat.github.io)
- Please talk to me or any of the other organizers!