

# Understanding the Implementation of `ifTrue:ifFalse:`

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W6S02



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# Yes ifTrue:ifFalse: is a message!

```
Weather isRaining  
  ifTrue: [ self takeMyUmbrella ]  
  ifFalse: [ self takeMySunglasses ]
```

- Conceptually ifTrue:ifFalse: is a message sent to an object: a boolean!
- Heavily optimised by the compiler

# Exercise

- Propose an implementation of `ifTrue:ifFalse:`
- You only have objects, messages and closures

```
false ifTrue: [ 3 ] ifFalse: [ 5 ]  
→ 5
```

```
true ifTrue: [ 3 ] ifFalse: [ 5 ]  
→ 3
```

# Implementing ifTrue:ifFalse:

- Remember:
  - [] freezes body execution
  - value kicks execution of a frozen code
- How to implement ifTrue:ifFalse:?
- Remember Not and Or?



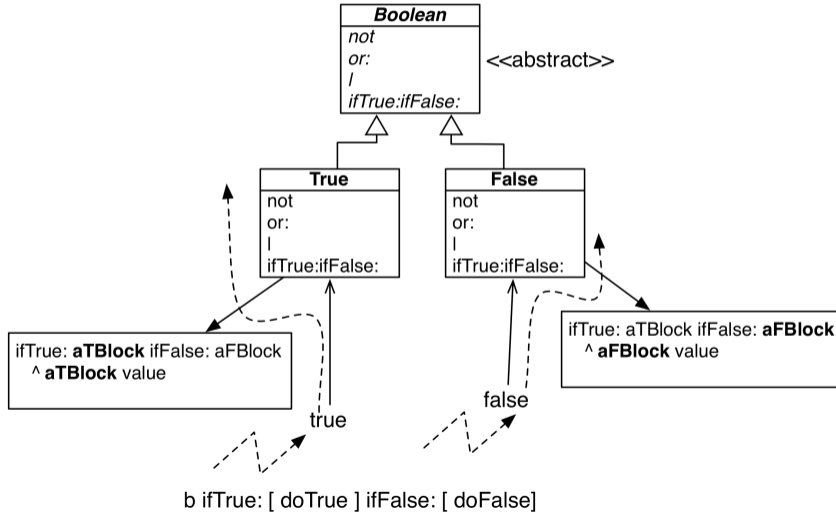
# Implementation of ifTrue:ifFalse:

Let the receiver decide!

```
True >> ifTrue: aTrueBlock ifFalse: aFalseBlock  
      ^ aTrueBlock value
```

```
False >> ifTrue: aTrueBlock ifFalse: aFalseBlock  
      ^ aFalseBlock value
```

# Implementation of ifTrue:ifFalse:



# Conclusion

- Sending a message selects the right method
- Let the receiver decide
- [] freezes computation and value forces execution



A course by



and



in collaboration with



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