Agenda

What does the title mean?

What does the title mean?

Title decomposition

What's the lifetime of your object object?

Title decomposition

What's the lifetime of your object object?

- What is a lifetime?

Title decomposition

What's the lifetime of your object?

- What is a lifetime?
- What is an object?

The object

Objects are:

- created

The object

Objects are:

- created
- destroyed

The object

Objects are:

- created
- destroyed
- refered to

The object

Objects are:

- created
- destroyed
- refered to
- accessed

The object

Objects are:

- created
- destroyed
- refered to
- accessed
- manipulated

The Object

Is created by

- The definition

The Object

Is created by

- The definition
- new expression

The Object

Is created by

- The definition
- new expression
- when changing active member of a union

The Object

Is created by

- The definition
- new expression
- when changing active member of a union
- creation of the temporary

The object

Has:

- optional name

The object

Has:

- optional name
- storage and it's duration

The object

Has:

- optional name
- storage and it's duration
- lifetime

The object

Has:

- optional name
- storage and it's duration
- lifetime
- type

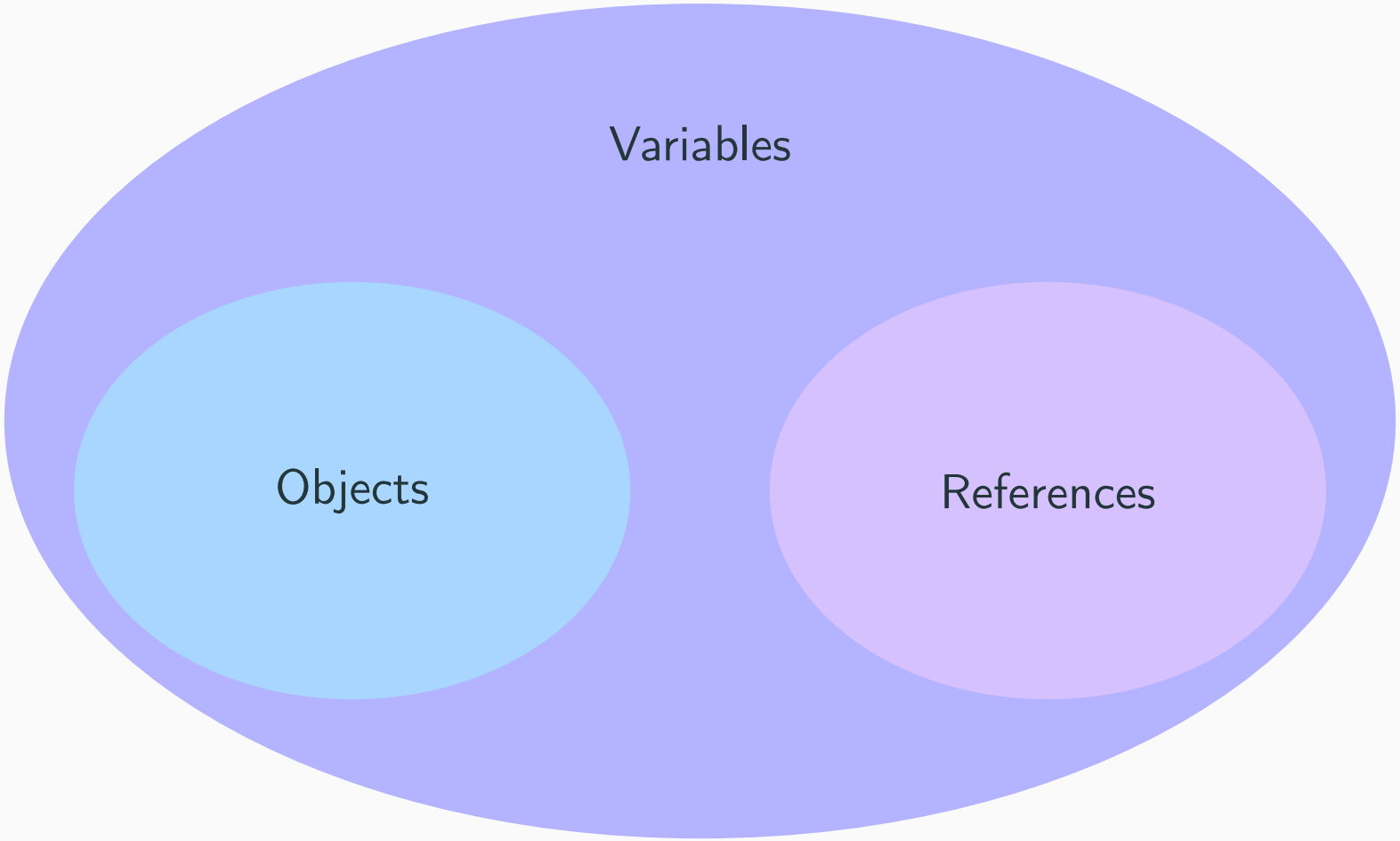
The object

Is not a reference (although reference has lifetime)

The variable

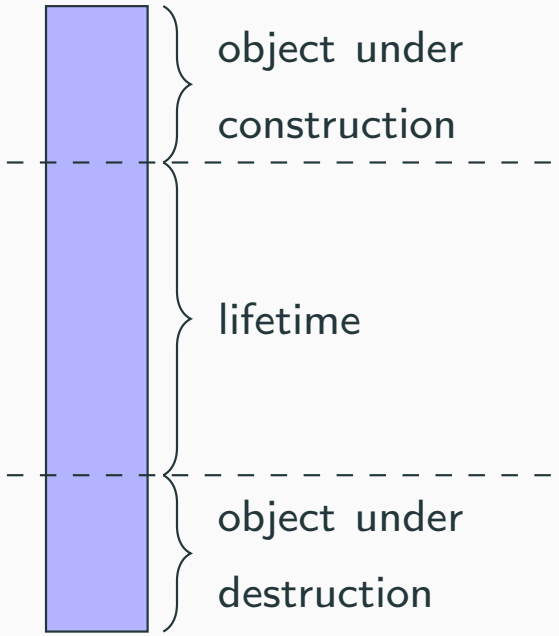
Can be either an object or the reference

Summary: variable, reference, object



What is lifetime?

Lifetime is a runtime property of an object.



When the lifetime starts

The lifetime of an object starts, when:

- storage with the proper alignment and size for type T is obtained

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- its initialization (if any) is complete
- if the object is a union member or subobject thereof, its lifetime only begins if that union member is the initialized member