#### **Weak Pointers**

std::weak\_ptr is the last component of the smart pointers family. Its purpose is limited compared to the other smart pointers, and we will examine why in this lesson.

#### WE'LL COVER THE FOLLOWING ^

- Introduction
- Methods
- Further information

## Introduction #

To be honest, <a href="mailto:std::weak\_ptr">std::weak\_ptr</a> is not a classic smart pointer, since it supports no transparent access to the resource; it only borrows the resource from an <a href="mailto:std::shared\_ptr">std::shared\_ptr</a>.

# Methods #

The table provides an overview of the methods of std::weak\_ptr.

Name	Description
expired	Checks if the resource was deleted.
lock	Creates a <pre>std::shared_ptr</pre> on the resource.
reset	Resets the resource.
swap	Swaps the resources.

use\_count

counter.

### Methods of std::weak\_ptr

There is one main reason for the existence and use of std::weak\_ptr.
It breaks the cycle of std::shared\_ptr. We will discuss these cyclic references in detail in the next lessons.

## Further information #

- std::weak\_ptr
- cyclic references

Let's see an example of this topic in the next lesson.