Request and Suppress Member Functions

- If necessary, the compiler generates many special member functions:
  - Default constructor and destructor
  - (copy/move) constructor, (copy/move) assignment operator
  - Operator new and delete for object and C arrays of objects

- With the key words `default` and `delete` you can guide the creation or suppression of these special member functions.

- A with `default` declared member function enforces the compiler to generate it, a with `delete` declared member function produces an error, when used.

The programmer defines the interface, the compiler provides the implementation.

Request Member Functions: `default`

- The compiler generates the request member functions due to the following characteristics:
  - They have `public` access rights and are not virtual.
  - The copy constructor and copy assignment operator get constant lvalue references.
  - The move constructor and move assignment operator get non constant rvalue references.
  - The member functions are not declared `explicit` and have no exception specification.

`default.cpp`

Suppress Member Functions: `delete`

- By `delete` you can define pure declarative, that a automatically generate member function from the compiler is not available.

- In combination with `default` you can define classes, for which their objects
  - Can not be copied.
  - Can only be created on the stack.
  - Can only be created on the heap.

`delete` is also applicable to functions.

`delete.cpp`