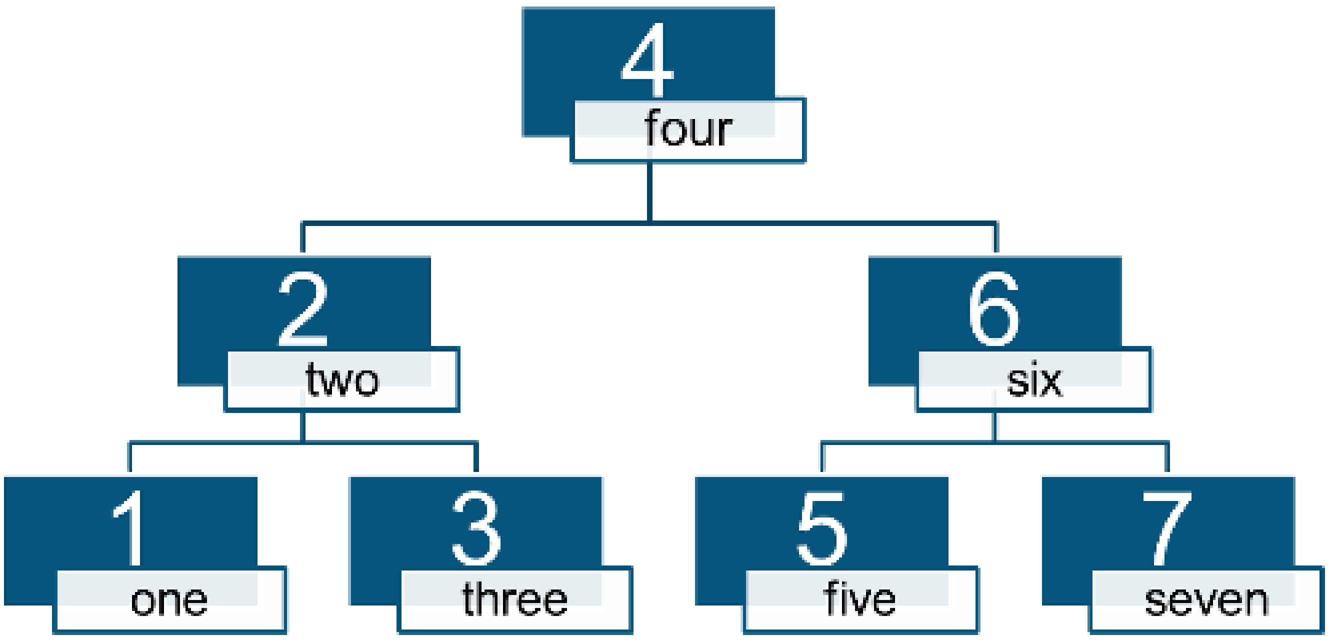
Maps

Now, we shall look at the features of std::map which make it such a popular container.



`std::map` is the by far the most frequently used associative container. The reason is simple. It combines a often sufficient enough performance with a very convenient interface. You can access its elements via the index operator. If the key doesn't exist, `std:map` creates a key/value pair. For the value, the default constructor is used.

> **Consider `std::map` as a generalization of `std::vector`**
> Often `std::map` is called an associative array. Array, because `std::map` supports the index operator like a sequential container. The subtle

> `std::vector`. Its index can be almost any arbitrary type.
>
> The same observations hold for its namesake `std::unordered_map`.

In addition to the index operator, `std::map` supports the `at` method. The access via `at` is checked. So if the request key doesn’t exist in the `std::map`, a `std::out_of_range` exception is thrown.