- Example

In this lesson, we will look at an example for built-in literals.

WE'LL COVER THE FOLLOWING

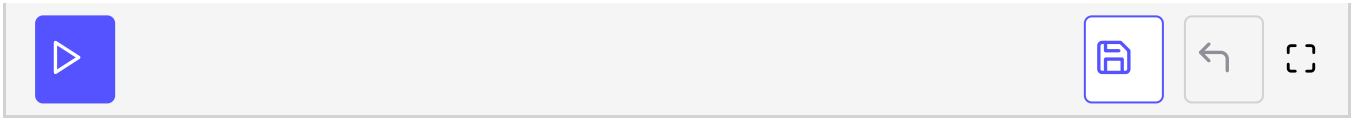
Example

Children often complain that their school day is exhausting. The question arises, how many seconds does a child need for a typical school day? The program provides the answer.

> 💡 The base unit for time is second.

```
#include <iostream>
#include <chrono>

using namespace std::literals::chrono_literals;

int main(){

  std::cout << std::endl;

  typedef std::chrono::duration<long long, std::ratio<2700>> hour;
  auto schoolHour= hour(1);
  // auto schoolHour= 45min;

  auto shortBreak= 300s;
  auto longBreak= 0.25h;

  auto schoolWay= 15min;
  auto homework= 2h;

  auto schoolDayInSeconds= 2*schoolWay + 6 * schoolHour + 4 * shortBreak + longBreak + homewo

  std::cout << "School day in seconds: " << schoolDayInSeconds.count() << std::endl;
```

```
  std::chrono::duration<double, std::ratio<3600>> schoolDayInHours = schoolDayInSeconds;
  std::chrono::duration<double, std::ratio<60>> schoolDayInMinutes = schoolDayInSeconds;
  std::chrono::duration<double, std::ratio<1, 1000>> schoolDayInMilliseconds= schoolDayInSecc


  std::cout << "School day in hours: " << schoolDayInHours.count() << std::endl;
  std::cout << "School day in minutes: " << schoolDayInMinutes.count() << std::endl;
  std::cout << "School day in milliseconds: " << schoolDayInMilliseconds.count() << std::endl

  std::cout << std::endl;

}
```



Explanation

The program is entirely self-explanatory. The suffixes are expressive enough. Making the correct additions is the job of the compiler. The time literals support the base arithmetic addition, subtraction, multiplication, division, and modulo operation.

In the next lesson, we will discuss assertions at compile time.