

Design and write a class which implements the methods

- `unsigned long millis()`  
Return the number of milliseconds / microseconds from the start of run time, looping back to zero after max-unsigned-long milliseconds (~50 days).
- `int micros()`  
Returns the remainder in microseconds.  
E.g if it has been 123456 microseconds since start, millis should return 123 and micros, 456.

Available API:

```
class Timer
{
    void start()                // start the timer
    void stop()                 // stop the timer
    void reset()                // reset the timer
    unsigned short read_s()     // number of seconds since start
    unsigned short read_ms()    // number of milliseconds since start
    int read_us()               // number of microseconds since start
}
```

```
class Ticker
{
    //attach a function, specifying interval in seconds
    attach (Callback< void()> func, float t)
    //attach a member function, specifying interval in seconds
    attach (T *obj, M method, float t)

    //attach a function, specifying interval in microseconds
    attach_us (Callback< void()> func, us_timestamp_t t)
    //attach a member function, specifying interval in microseconds
    attach_us (T *obj, M method, us_timestamp_t t)

    //detach
    void detach()
}
```

Please note:

- Timer resets every max-int microseconds (~30 minutes)
- Please assume this is a multithreaded environment, and the context can be switched at any point, on any thread, for a significant amount of time (a few milliseconds).