欧拉筛

```
vector<int> primes(N + 1), val(N + 1);
int cnt = 0;
auto ola = [&]() -> void {
    for(int i = 2; i <= N; i ++) {
        if(val[i] == 0) primes[++ cnt] = i;
        for(int j = 1; j <= cnt && i * primes[j] <= N; j ++) {
            val[i * primes[j]] = primes[j];
            if(i % primes[j] == 0) break;
        }
    }
};
ola();</pre>
```