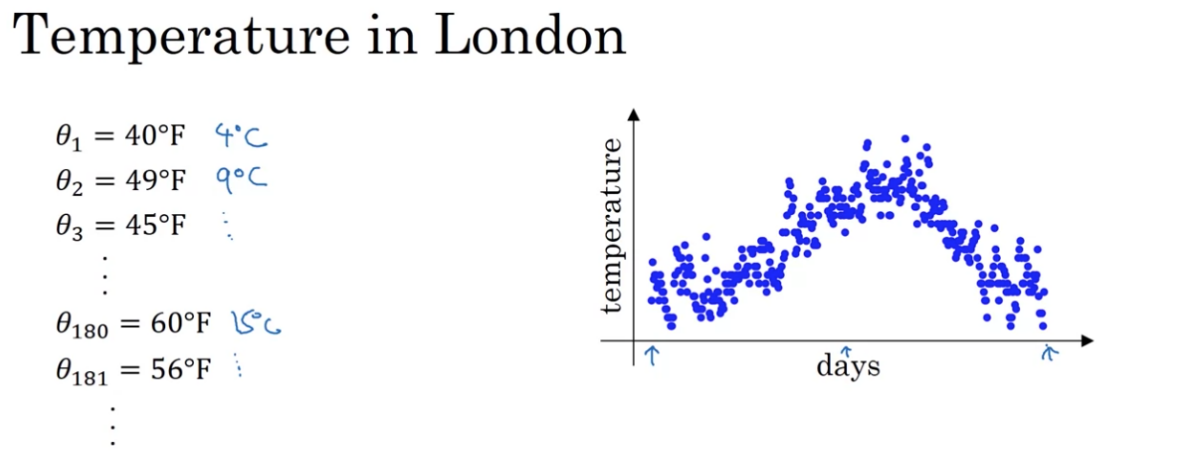
3. Exponentially Weighted Averages

Tags | Exponentially weighted averages | Moving Averages

Temperature in London

Exponentially weighted averages

Temperature in London



- Moving Average
- Exponentially weighted averages

Exponentially weighted averages

Exponentially weighted averages

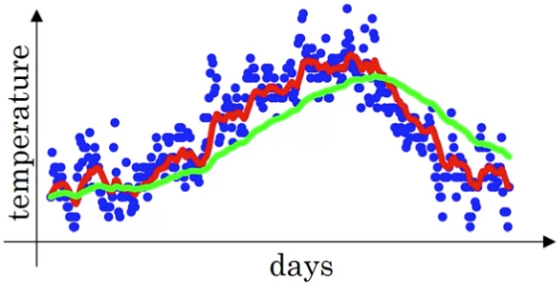
$V_t = \beta V_{t-1} + (1-\beta)\theta_t$

$\beta = 0.9$: $\approx$ 10 days' temperature

$\beta = 0.98$: $\approx$ 50 days

V_t as approximately average over $\approx \frac{1}{1-\beta}$ days' temperature.

$\frac{1}{1-0.98} = 50$



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Exponentially weighted averages

$V_t = \beta V_{t-1} + (1-\beta)\theta_t$

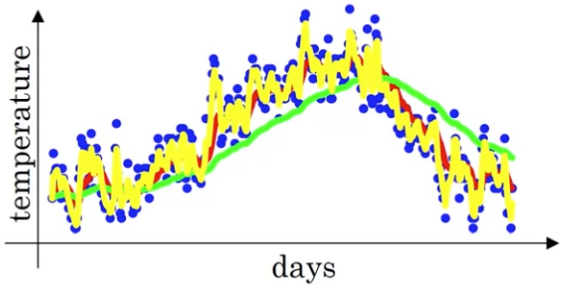
$\beta = 0.9$: $\approx$ 10 days' temperature

$\beta = 0.98$: $\approx$ 50 days

$\beta = 0.5$: $\approx$ 2 days

V_t as approximately average over $\approx \frac{1}{1-\beta}$ days' temperature.

$\frac{1}{1-0.98} = 50$



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💡 Think about it

> B(beta)가 커지면 Exponentially weighted average가 어떻게 될까?

반대로 B가 작아지면?!

- B가 크다는 말은 이전값을 더 많이 고려한다는 의미이다 ⇒ 곡선이 스무스해진다!