Exercise 4:
Complex Event Processing

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Concepts and Technologies for Distributed Systems and Big Data Processing – SS 2016

Solution 1 Simple Esper Queries

Assume a stock tick event `StockTick(String name, int price)` with the fields `name` and `price` representing the name of an company and the associated price for a stock tick.

a) Write a query which computes the average prices over the last 30 seconds.

```
select avg(price) from StockTickEvent.win:time(30 sec)
```

b) Write a query which alerts on each `"IBM"` stock tick with a price greater then 80 and within the next 60 seconds.

```
every StockTickEvent(name="IBM", price>80) where timer:within(60 seconds)
```

c) Write a query that returns the average price per name for the last 100 stock ticks.

```
select name, avg(price) as averagePrice
  from StockTickEvent.win:length(100)
group by name
```

Solution 2 Complex Esper Queries

You can download the code for the solution for this task from the course website.