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|  | div(  round(  mult(  div(  if(eq(sum(CONVERSIONS),0.0),0.0,div(sum(CURRENCY\_COST),pow(10,10))),  if(eq(sum(CONVERSIONS),0.0),-1.0,sum(CONVERSIONS))  )  ,100.0)  )  ,100.0) |
|  | div(  round(  mult(  div(  if(eq(sum(CONFIRMED\_IMPRESSIONS),0.0),0.0,sum(CONFIRMED\_CLICKS)),  if(eq(sum(CONFIRMED\_IMPRESSIONS),0.0),-1.0,sum(CONFIRMED\_IMPRESSIONS))  )  ,100d)  )  ,100d) |
|  | div(  round(  mult(  div(  if(eq(sum(CONFIRMED\_CLICKS),0.0),0.0,sum(CONVERSIONS)),  if(eq(sum(CONFIRMED\_CLICKS),0.0),-1.0,sum(CONFIRMED\_CLICKS))  )  ,100d)  )  ,100d) |
|  | sum(CONFIRMED\_IMPRESSIONS) as "total\_impressions |

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| let(a=timeseries(collection, field="test\_dt", q="\*:\*",                           start="2012-05-01T00:00:00Z",                           end="2012-06-30T23:59:59Z",                           gap="+1MONTH",                            count(\*)),       get(a)) |
| let(stockA = sql(stocks, stmt="select closing\_price from price\_data where ticker='aaa' and ..."),       stockB = sql(stocks, stmt="select closing\_price from price\_data where ticker='bbb' and ..."),       pricesA = col(stockA, closing\_price),       pricesB = col(stockB, closing\_price),       movingA = movingAvg(pricesA, 30),       movingB = movingAvg(pricesB, 30),       tuple(correlation=corr(movingA, movingB))) |

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| {"id":"event-1","campaign\_id\_s":"cmp-01","org\_id\_s":"org-01","conversations\_i":4,"impressions\_i":134,"clicks\_i":48},  {"id":"event-2","campaign\_id\_s":"cmp-02","org\_id\_s":"org-02","conversations\_i":2,"impressions\_i":174,"clicks\_i":26},  {"id":"event-3","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":6,"impressions\_i":152,"clicks\_i":49},  {"id":"event-4","campaign\_id\_s":"cmp-01","org\_id\_s":"org-01","conversations\_i":5,"impressions\_i":154,"clicks\_i":27},  {"id":"event-5","campaign\_id\_s":"cmp-02","org\_id\_s":"org-01","conversations\_i":9,"impressions\_i":176,"clicks\_i":38},  {"id":"event-6","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":5,"impressions\_i":137,"clicks\_i":83},  {"id":"event-7","campaign\_id\_s":"cmp-01","org\_id\_s":"org-01","conversations\_i":3,"impressions\_i":154,"clicks\_i":36},  {"id":"event-8","campaign\_id\_s":"cmp-02","org\_id\_s":"org-02","conversations\_i":1,"impressions\_i":178,"clicks\_i":35},  {"id":"event-9","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":7,"impressions\_i":124,"clicks\_i":49},  {"id":"event-10","campaign\_id\_s":"cmp-01","org\_id\_s":"org-01","conversations\_i":8,"impressions\_i":147,"clicks\_i":26},  {"id":"event-11","campaign\_id\_s":"cmp-02","org\_id\_s":"org-01","conversations\_i":2,"impressions\_i":165,"clicks\_i":47},  {"id":"event-12","campaign\_id\_s":"cmp-03","org\_id\_s":"org-02","conversations\_i":6,"impressions\_i":126,"clicks\_i":35},  {"id":"event-13","campaign\_id\_s":"cmp-01","org\_id\_s":"org-01","conversations\_i":8,"impressions\_i":156,"clicks\_i":36},  {"id":"event-14","campaign\_id\_s":"cmp-02","org\_id\_s":"org-01","conversations\_i":5,"impressions\_i":154,"clicks\_i":50},  {"id":"event-15","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":7,"impressions\_i":128,"clicks\_i":39},  {"id":"event-16","campaign\_id\_s":"cmp-01","org\_id\_s":"org-02","conversations\_i":3,"impressions\_i":178,"clicks\_i":47},  {"id":"event-17","campaign\_id\_s":"cmp-02","org\_id\_s":"org-01","conversations\_i":6,"impressions\_i":136,"clicks\_i":25},  {"id":"event-18","campaign\_id\_s":"cmp-03","org\_id\_s":"org-02","conversations\_i":1,"impressions\_i":167,"clicks\_i":68},  {"id":"event-19","campaign\_id\_s":"cmp-01","org\_id\_s":"org-01","conversations\_i":8,"impressions\_i":128,"clicks\_i":48},  {"id":"event-20","campaign\_id\_s":"cmp-02","org\_id\_s":"org-01","conversations\_i":3,"impressions\_i":167,"clicks\_i":38}, {"id":"event-21","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":6,"impressions\_i":138,"clicks\_i":48}, {"id":"event-22","campaign\_id\_s":"cmp-01","org\_id\_s":"org-02","conversations\_i":4,"impressions\_i":117,"clicks\_i":28}, {"id":"event-23","campaign\_id\_s":"cmp-02","org\_id\_s":"org-01","conversations\_i":3,"impressions\_i":189,"clicks\_i":54}, {"id":"event-24","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":8,"impressions\_i":123,"clicks\_i":47}, {"id":"event-25","campaign\_id\_s":"cmp-01","org\_id\_s":"org-01","conversations\_i":5,"impressions\_i":135,"clicks\_i":38}, {"id":"event-26","campaign\_id\_s":"cmp-02","org\_id\_s":"org-02","conversations\_i":8,"impressions\_i":148,"clicks\_i":54}, {"id":"event-27","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":1,"impressions\_i":138,"clicks\_i":56}, {"id":"event-28","campaign\_id\_s":"cmp-01","org\_id\_s":"org-02","conversations\_i":5,"impressions\_i":127,"clicks\_i":37}, {"id":"event-29","campaign\_id\_s":"cmp-02","org\_id\_s":"org-01","conversations\_i":7,"impressions\_i":148,"clicks\_i":45}, {"id":"event-30","campaign\_id\_s":"cmp-03","org\_id\_s":"org-01","conversations\_i":3,"impressions\_i":128,"clicks\_i":23} |

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| search(weekly\_data,  zkHost="localhost:9983",  qt="/export",  q="\*:\*",  fq="campaign\_id\_s:(cmp-01 OR cmp-02 OR cmp-03)",  fq="org\_id\_s:org-01",  fl="id,campaign\_id\_s,org\_id\_s,conversations\_i,impressions\_i,clicks\_i",  sort="campaign\_id\_s asc") |

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| rollup(  search(weekly\_data,  zkHost="localhost:9983",  qt="/export",  q="\*:\*",  fq="campaign\_id\_s:(cmp-01 OR cmp-02 OR cmp-03)",  fq="org\_id\_s:org-01",  fl="id,campaign\_id\_s,org\_id\_s,conversations\_i,impressions\_i,clicks\_i",  sort="campaign\_id\_s asc"),  over="campaign\_id\_s",  sum(conversations\_i), sum(impressions\_i), sum(clicks\_i)) |

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| select(  rollup(  search(weekly\_data,  zkHost="localhost:9983",  qt="/export",  q="\*:\*",  fq="campaign\_id\_s:(cmp-01 OR cmp-02 OR cmp-03)",  fq="org\_id\_s:org-01",  fl="id,campaign\_id\_s,org\_id\_s,conversations\_i,impressions\_i,clicks\_i",  sort="campaign\_id\_s asc"),  over="campaign\_id\_s",  sum(conversations\_i), sum(impressions\_i), sum(clicks\_i)),  campaign\_id\_s as campaign\_id\_s,  sum(conversations\_i) as aggr\_conv,  sum(impressions\_i) as aggr\_impr,  sum(clicks\_i) as aggr\_clicks) |

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| select(  rollup(  search(weekly\_data,  zkHost="localhost:9983",  qt="/export",  q="\*:\*",  fq="campaign\_id\_s:(cmp-01 OR cmp-02 OR cmp-03)",  fq="org\_id\_s:org-01",  fl="id,campaign\_id\_s,org\_id\_s,conversations\_i,impressions\_i,clicks\_i",  sort="campaign\_id\_s asc"),  over="campaign\_id\_s",  sum(conversations\_i), sum(impressions\_i), sum(clicks\_i)),  campaign\_id\_s as campaign\_id\_s,  sum(conversations\_i) as aggr\_conv,  sum(impressions\_i) as aggr\_impr,  sum(clicks\_i) as aggr\_clicks) |

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| let(  a=timeseries(historical\_stocks\_data, field="timestamp\_dt", fl="closing\_pts\_i", q="stock\_s:stockA", start="2013-01-31T00:00:00Z", end="2017-01-31T00:00:00Z", gap="+7DAYS", avg(closing\_pts\_i)),  b=timeseries(historical\_stocks\_data, field="timestamp\_dt", fl="closing\_pts\_i", q="stock\_s:stockB", start="2013-01-31T00:00:00Z", end="2017-01-31T00:00:00Z", gap="+7DAYS", avg(closing\_pts\_i)),  stockA=select(get(a), avg(closing\_pts\_i) as avg\_closingA, timestamp\_dt as timestamp\_dt),  stockB=select(get(b), avg(closing\_pts\_i) as avg\_closingB, timestamp\_dt as timestamp\_dt),  pricesA = col(stockA, avg\_closingA),  pricesB = col(stockB, avg\_closingB),  movingA = movingMedian(pricesA, 30),  movingB = movingMedian(pricesB, 30),  tuple(correlation=corr(movingA, movingB)))  "correlation": 0.9999429332530996 |

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| let(  a=timeseries(historical\_stocks\_data, field="timestamp\_dt", fl="closing\_pts\_i", q="stock\_s:stockA", start="2013-01-31T00:00:00Z", end="2017-01-31T00:00:00Z", gap="+7DAYS", avg(closing\_pts\_i)),  get(a)) |

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| let(  a=timeseries(historical\_stocks\_data, field="timestamp\_dt", fl="closing\_pts\_i", q="stock\_s:stockA", start="2013-01-31T00:00:00Z", end="2017-01-31T00:00:00Z", gap="+7DAYS", avg(closing\_pts\_i)),  c=timeseries(historical\_stocks\_data, field="timestamp\_dt", fl="closing\_pts\_i", q="stock\_s:stockC", start="2013-01-31T00:00:00Z", end="2017-01-31T00:00:00Z", gap="+7DAYS", avg(closing\_pts\_i)),  stockA=select(get(a), avg(closing\_pts\_i) as avg\_closingA, timestamp\_dt as timestamp\_dt),  stockC=select(get(c), avg(closing\_pts\_i) as avg\_closingC, timestamp\_dt as timestamp\_dt),  pricesA = col(stockA, avg\_closingA),  pricesC = col(stockC, avg\_closingC),  movingA = movingMedian(pricesA, 30),  movingC = movingMedian(pricesC, 30),  tuple(correlation=corr(movingA, movingC)))  "correlation": -0.5077727897022903 |