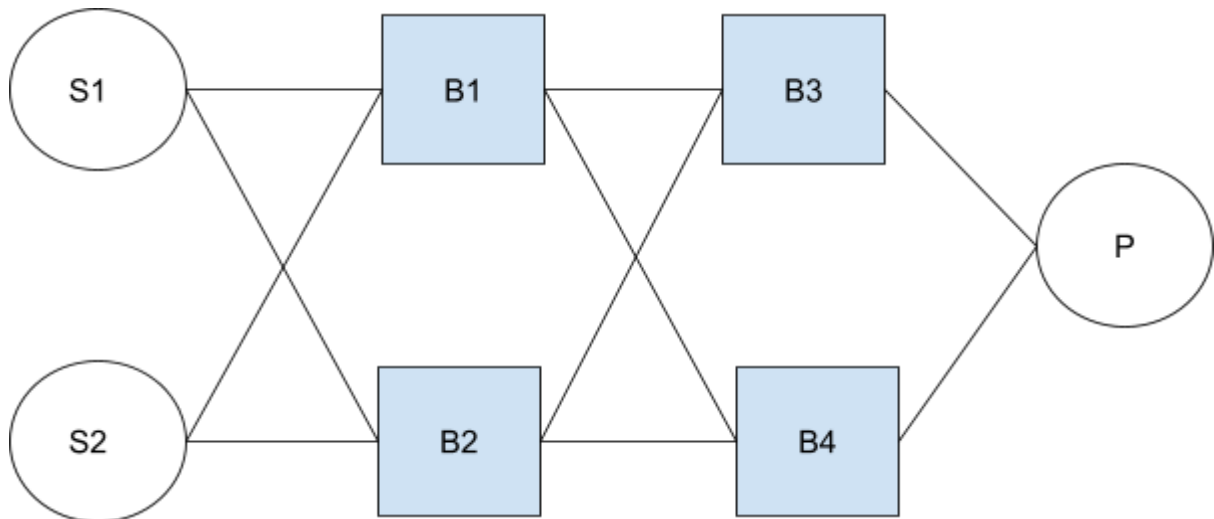


# Event based systems project report

The project was developed in Java and for sending messages we used RabbitMQ.

## Architecture

- 2 subscribers
- 4 brokers
- 1 publisher



## Tests for a) and b) (For a feed of 3 minutes)

- 2 subscribers
- 1 publisher
- 4 brokers

### TEST 1

Subscriber 1	5000 subscriptions sent	161 notifications received
Subscriber 2	5000 subscriptions sent	597 notifications received
Publisher	100000 publications sent	
Average latency	65695,21 milliseconds	

## TEST 2

Subscriber 1	5000 subscriptions sent	195 notifications received
Subscriber 2	5000 subscriptions sent	839 notifications received
Publisher	100000 publications sent	
Average latency	100318.44 milliseconds	

### Test for c)

**Case 1:** Field “value” has 100% percent for operator “=”

**Info:** Company - 70%, Value - 100%, Drop - 30%, Variation - 30%, Date - 40%

2 Subscribers, 2 SubBroker, 2 PubBroker, 1 Publisher

Publisher	10000 publications		
<b>Subscriber 1</b>	1948 publications received	1022 publications received	1995 publications received
<b>Subscriber 2</b>	966 publications received	1989 publications received	1010 publications received
<b>Total</b>	2914 total publications received	3011 total publications received	3005 total publications received
<b>Matching rate subscriber 1</b>	19,48%	10,22%	19,95%
<b>Matching rate subscriber 2</b>	9,66%	19,89%	10,10%
<b>Total matching rate</b>	29,14%	30,11%	30,05%
<b>Publication matching rate per subscription</b>	0.4892%	0,4891%	0,4865%

Publisher	10000 publications		
<b>Subscriber</b>	2992 publications received	2945 publications received	2908 publications received
<b>Matching rate</b>	29.92%	29.45%	29.08%
<b>Publication matching rate per subscription</b>	0.5016%	0,4955%	0,4977%

**Info:** Company - 70%, Value - 99.95%, Drop - 30%, Variation - 30%, Date - 40%

<b>Publisher</b>	10000 publications		
<b>Subscriber</b>	8493 publications received	9333 publications received	8511 publications received
<b>Matching rate</b>	84,93%	93,33%	85,11%
<b>Publication matching rate per subscription</b>	1,7556%	1,6448%	1,5008%

**Case 2:** Field “value” has 25% percent for operator “=”

<b>Publisher</b>	10000 publications
<b>Subscriber</b>	9063 publications received
<b>Matching rate</b>	90.63%
<b>Publication matching rate per subscription</b>	74,07%