

# Metrics Applied



| Who am I



Igor Tamashchuk  
Software Developer



# | The Company

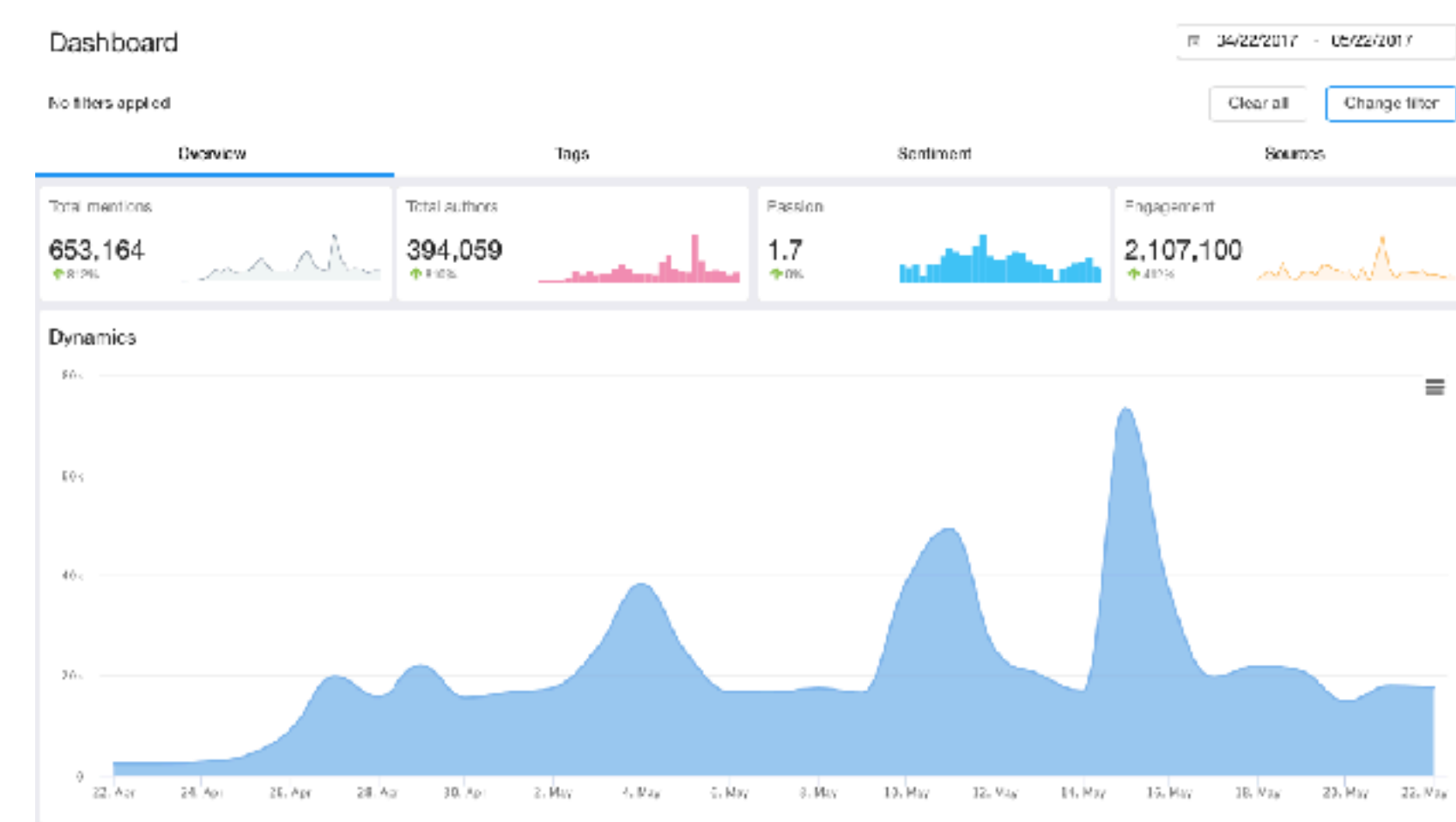
YouScan is a **social media analytics company**. Offices in Kiev and Moscow.

Our social media monitoring platform is used by **300+ major brands and agencies**, including:



**Rated #1** social media monitoring platform in CIS in AdIndex Technology Index 2016.

# The product: [YouScan.io](https://youscan.io) for social media listening



SaaS platform which provides **real-time monitoring and analytics** of brand mentions on social networks, blogs, forums, review sites and online news.

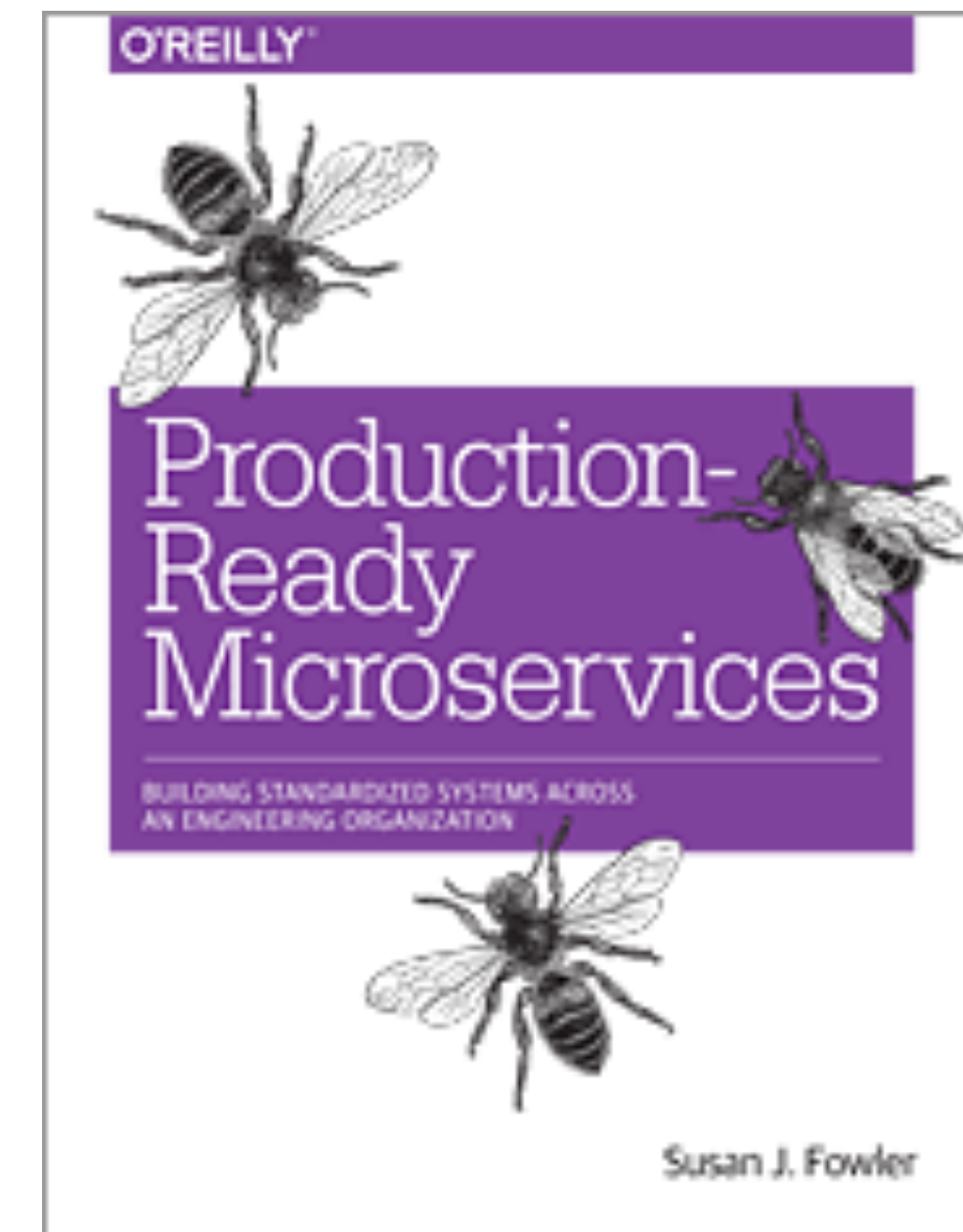
Used by **PR, Marketing, Client Service** departments to:

- manage brand's online reputation;
- discover consumer insights and social media audiences involved in discussions, find brand influencers and detractors;
- provide customer support on social media.



# Production-Readiness Standards

- Stability and Reliability
- Scalability
- Fault-Tolerance and Catastrophe-Preparedness
- Performance
- **Observability**
- Documentation and Understanding



# Monitoring for Observability

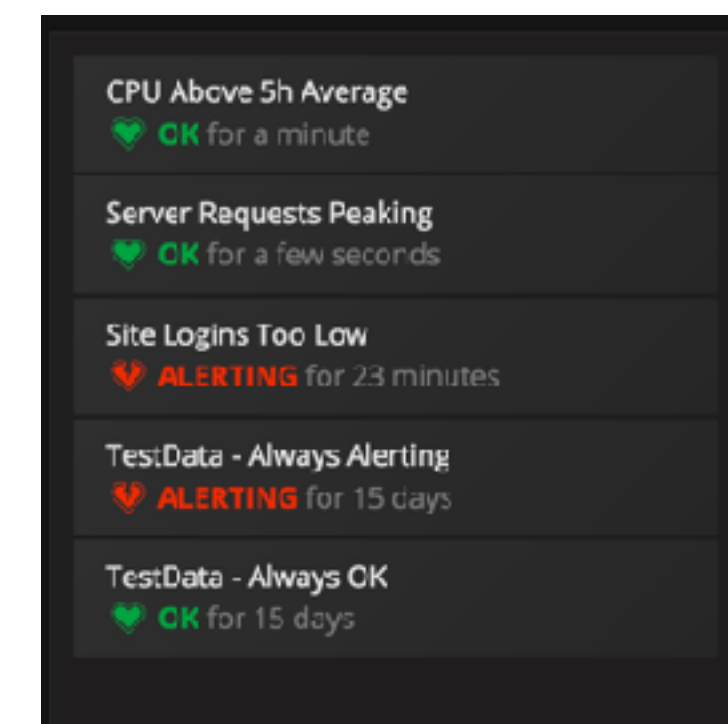
- Important and relevant information

```
14:19:59.000 backend1 /var/log/apache2/access.log 87.163.210.225 -- [22/Sep/2016:21:19:59 +0000] "GET /report?name=Current%20
14:19:59.000 backend3 /var/log/apache2/access.log 182.0.165.199 -- [22/Sep/2016:21:19:59 +0000] "GET /dashboard HTTP/1.1" 200 1188
14:19:59.000 backend4 /var/log/apache2/access.log 217.130.248.34 -- [22/Sep/2016:21:19:59 +0000] "GET / HTTP/1.1" 200 1188
14:19:59.000 backend1 /var/log/apache2/access.log 19.141.207.65 -- [22/Sep/2016:21:19:59 +0000] "GET / HTTP/1.1" 200 10647
14:19:59.000 backend3 /var/log/apache2/access.log 33.201.177.48 -- [22/Sep/2016:21:19:57 +0000] "GET / HTTP/1.1" 200 12400
14:19:59.000 backend4 /var/log/apache2/access.log 17.232.9.76 -- [22/Sep/2016:21:19:59 +0000] "GET / HTTP/1.1" 200 9889 "/"
14:19:59.000 backend1 /var/log/apache2/access.log 108.16.244.75 -- [22/Sep/2016:21:19:59 +0000] "GET / HTTP/1.1" 200 11427
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14:19:59.000 backend1 /var/log/apache2/access.log 177.5.77.189 -- [22/Sep/2016:21:19:59 +0000] "GET /report?name=Current%20
```

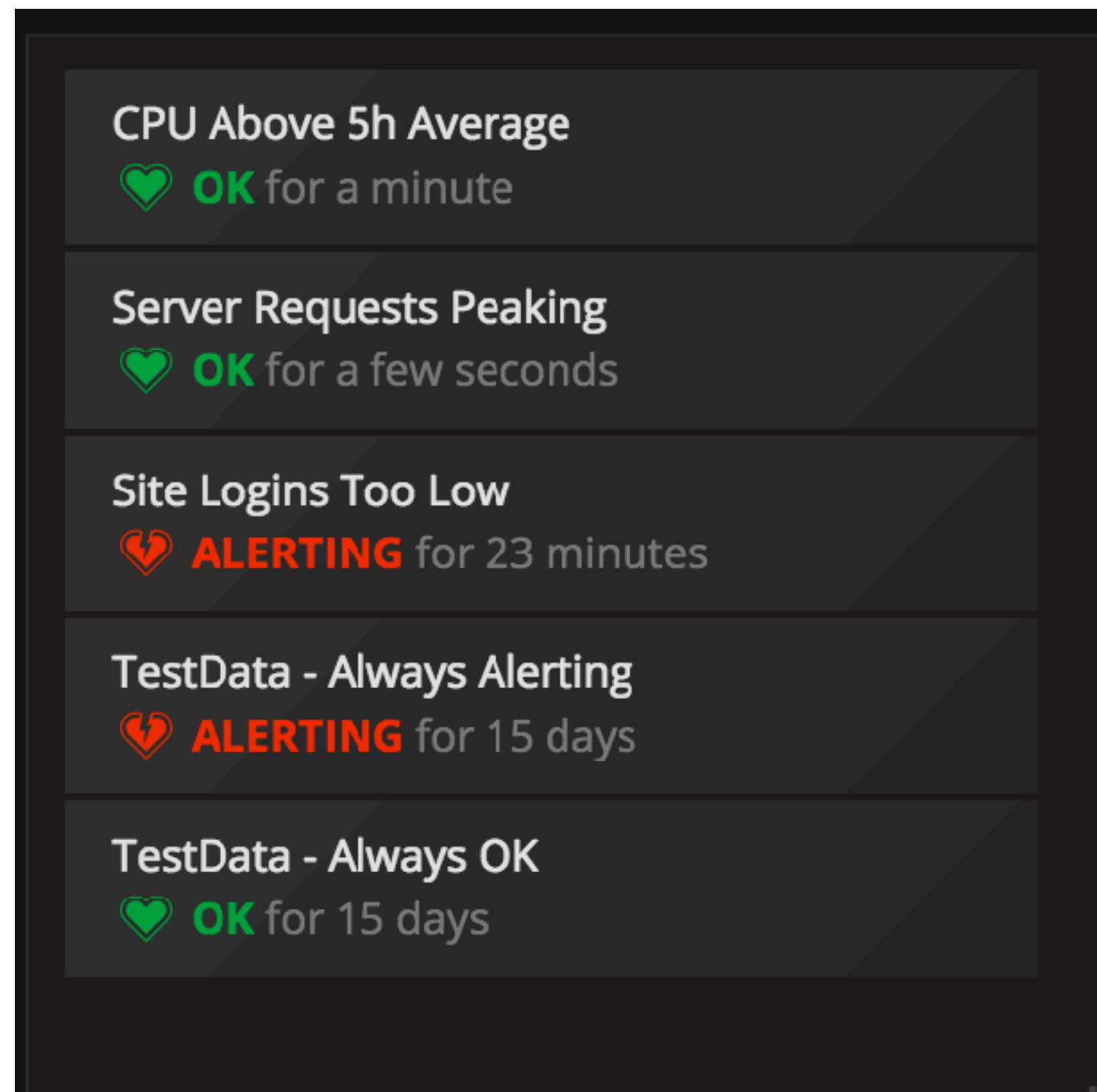
- Useful Dashboards



- Actionable Alerts

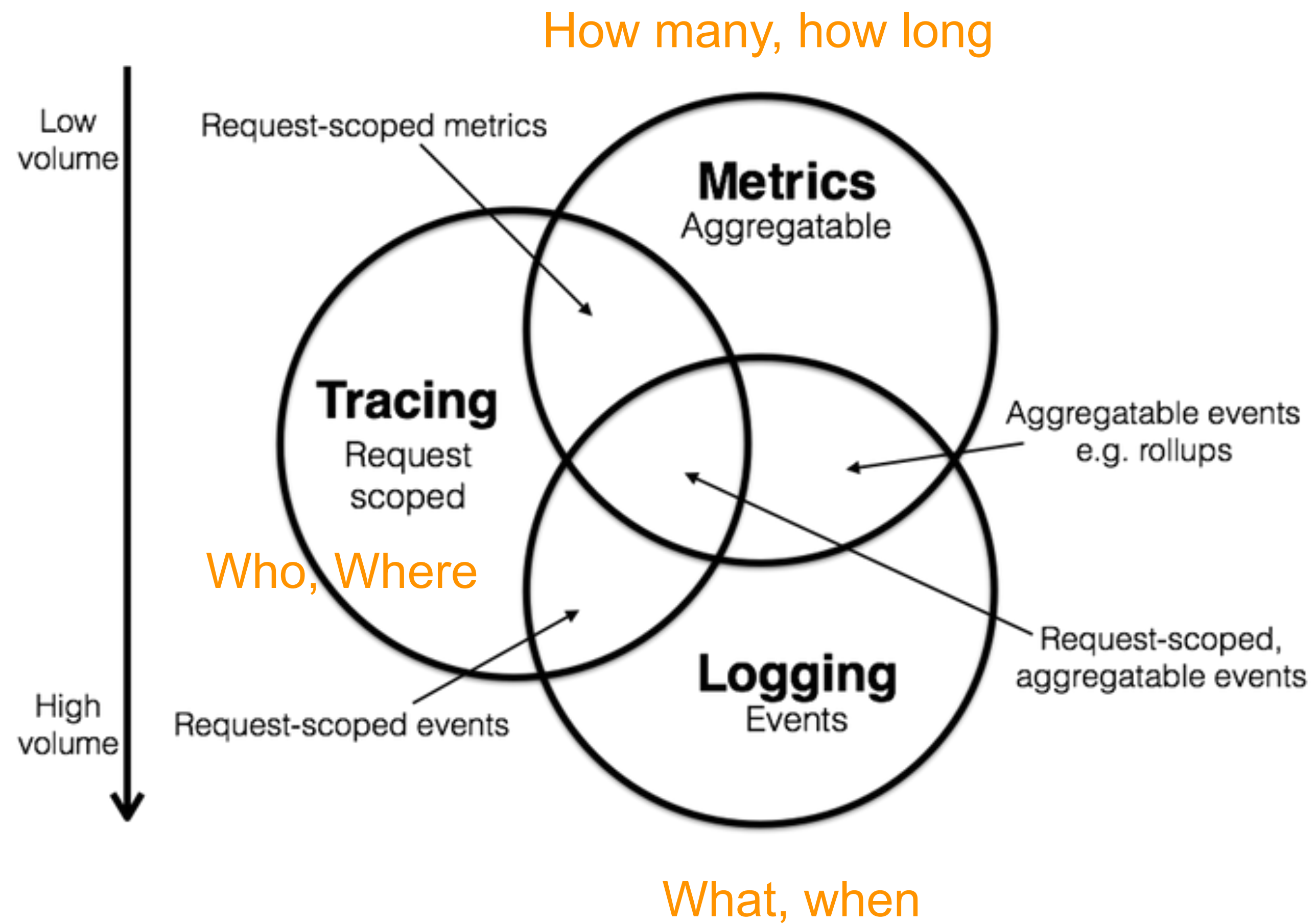


# Monitoring for Observability



- Incident management
- SLA, SLO and SLI

# Metrics, tracing, and logging

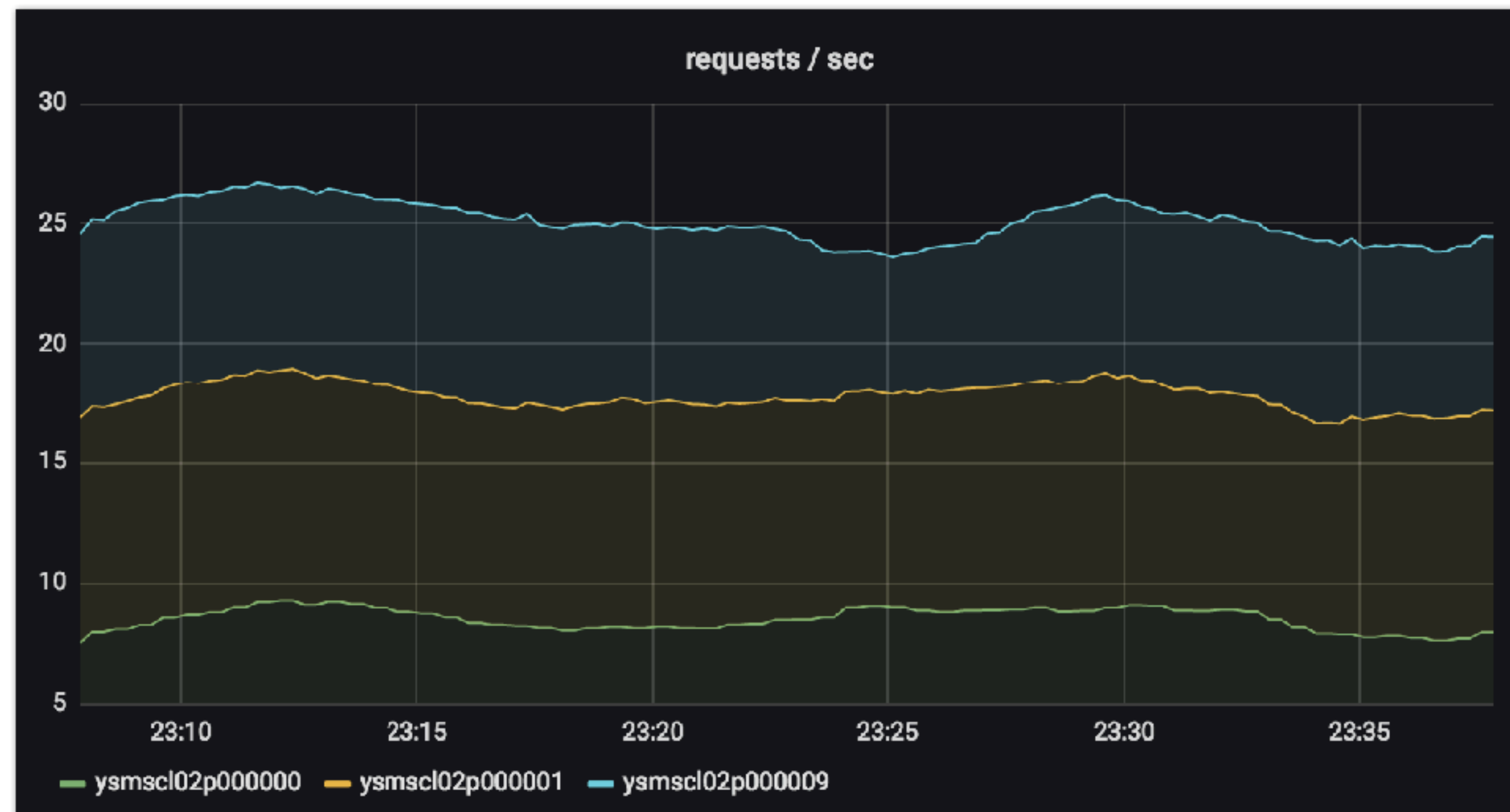




# Count

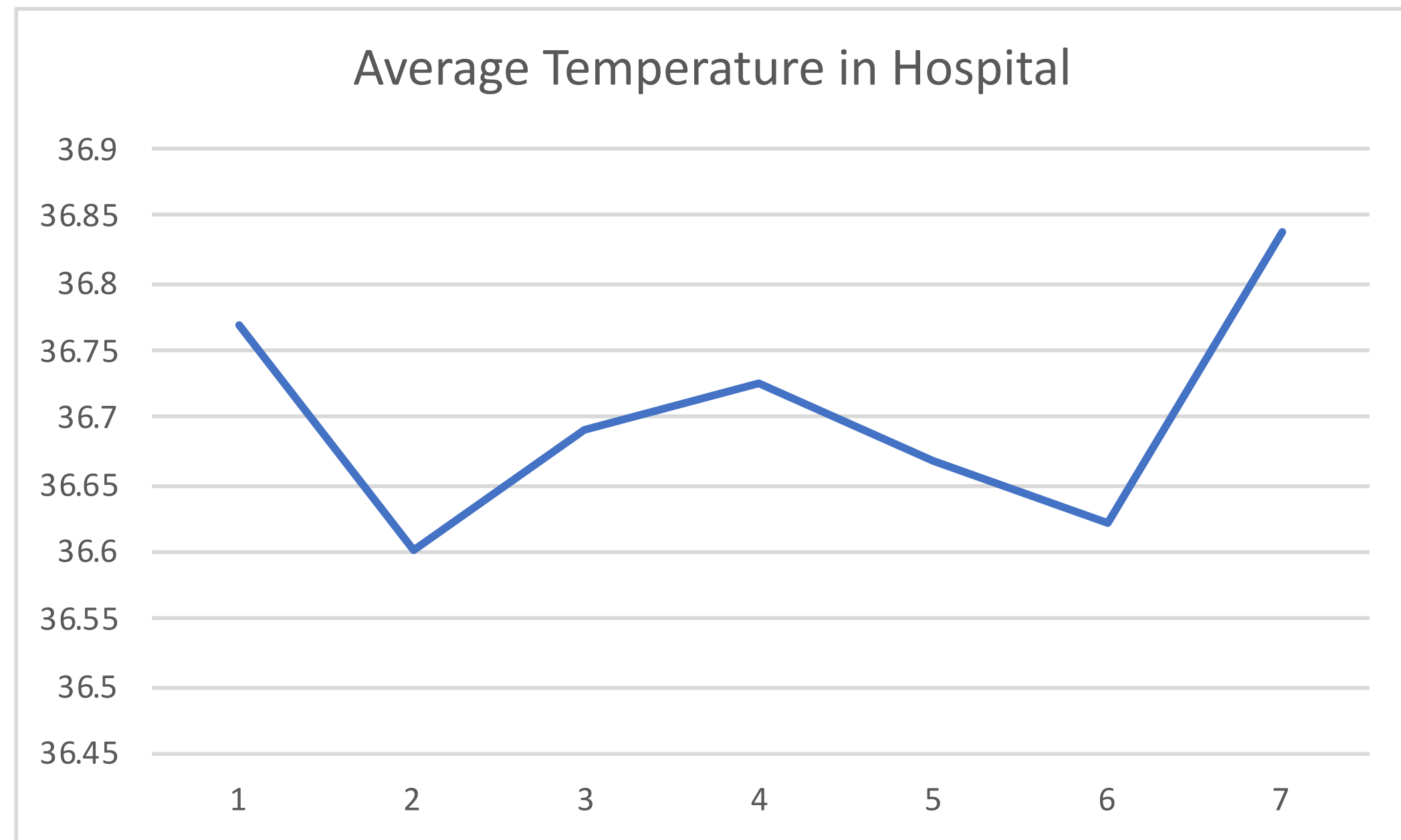


- Can be summarized
- Can be rated



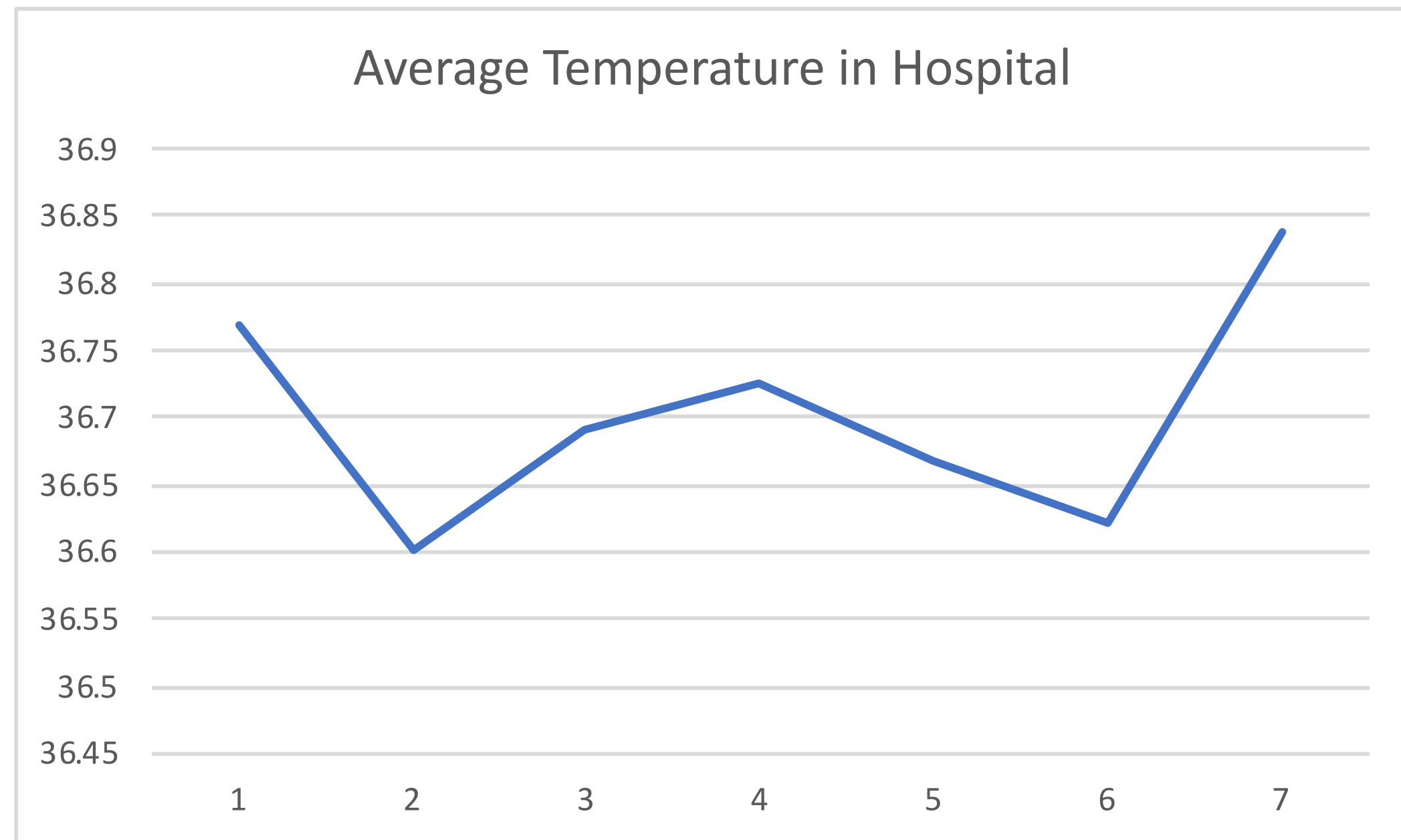
# Measurement

Can't be summarized!

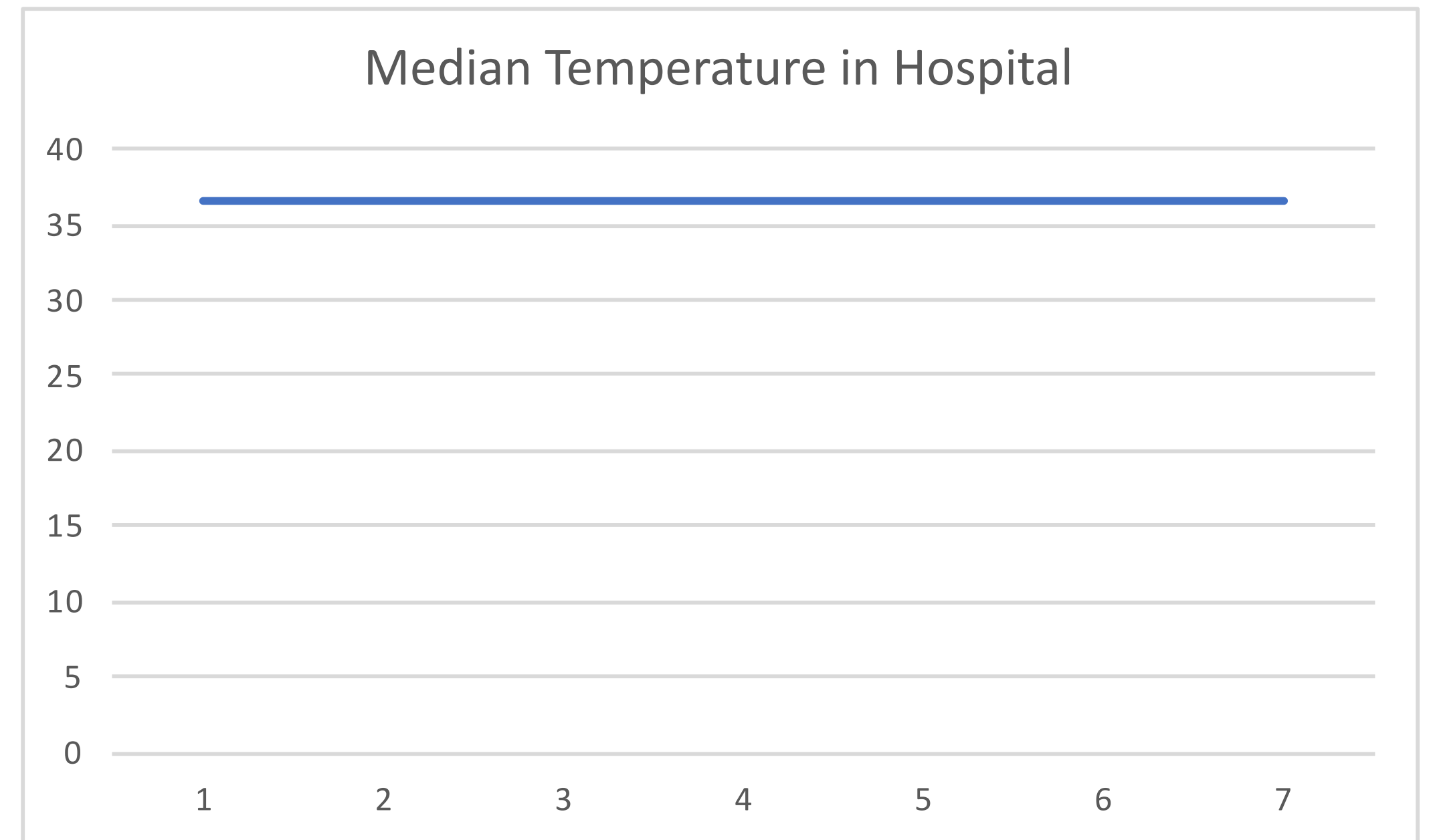


# Measurement

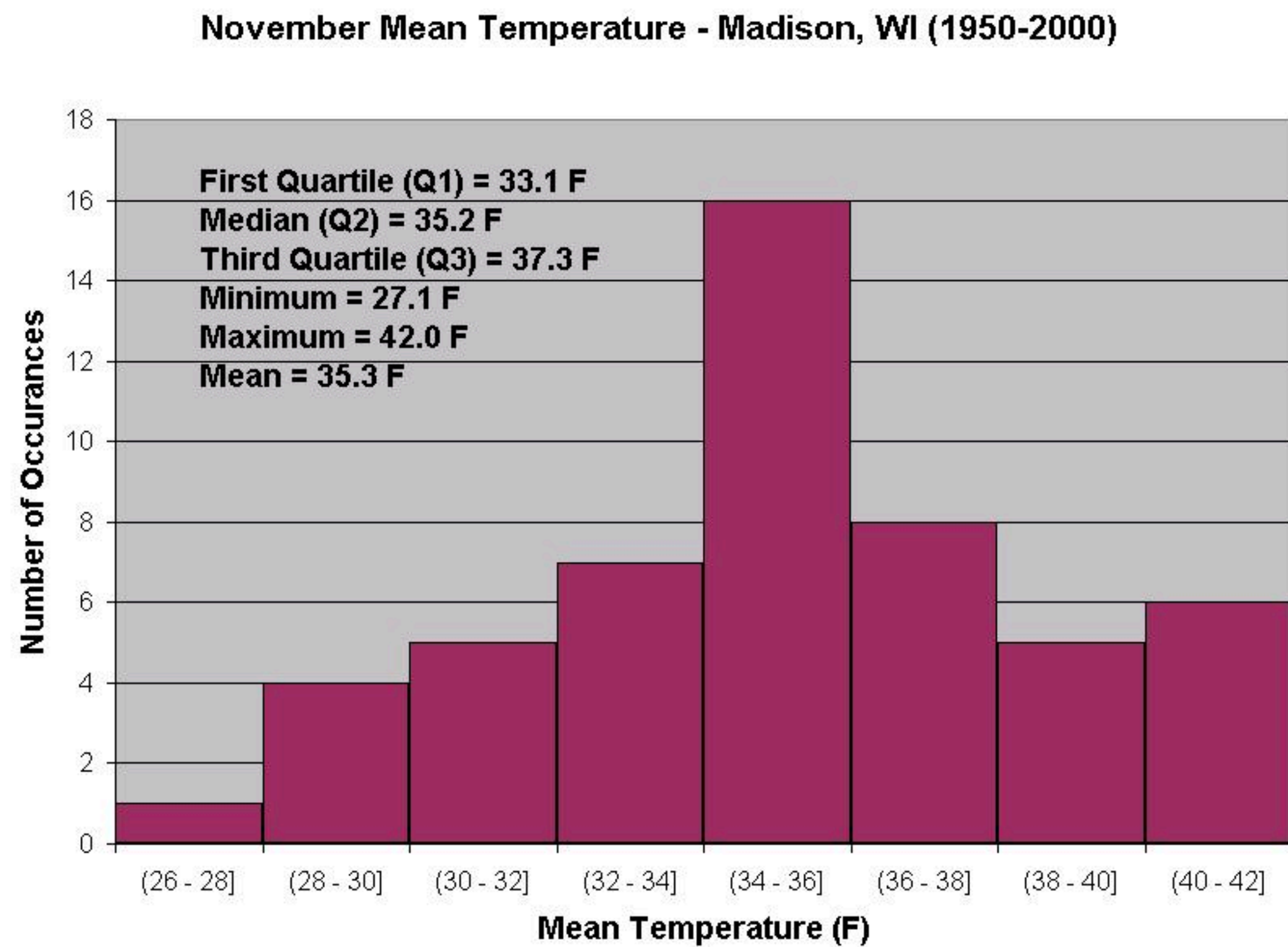
Can't be summarized!



Quantiles FTW!

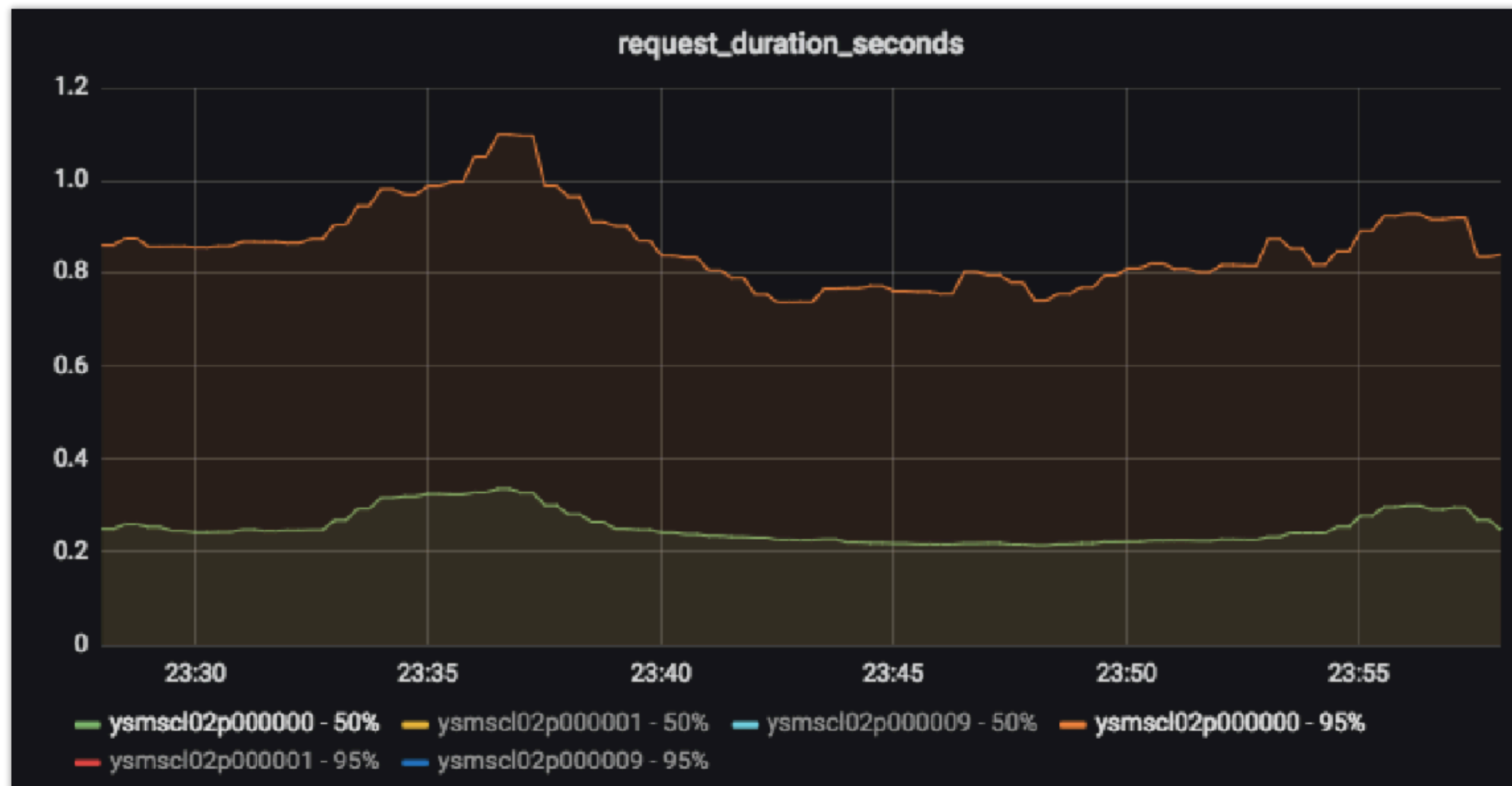


# Measurement



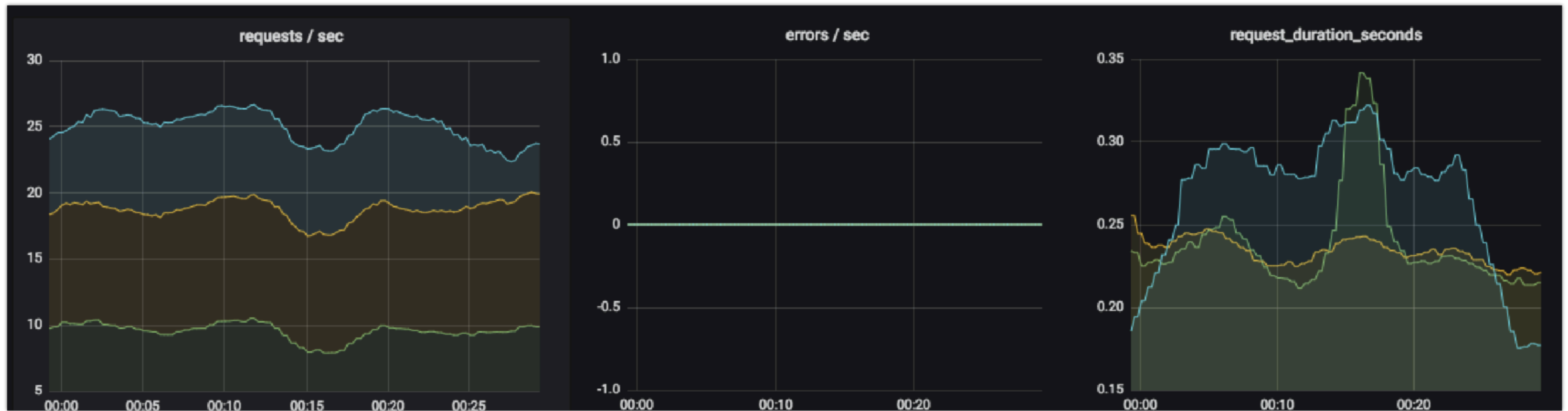


# Measurement

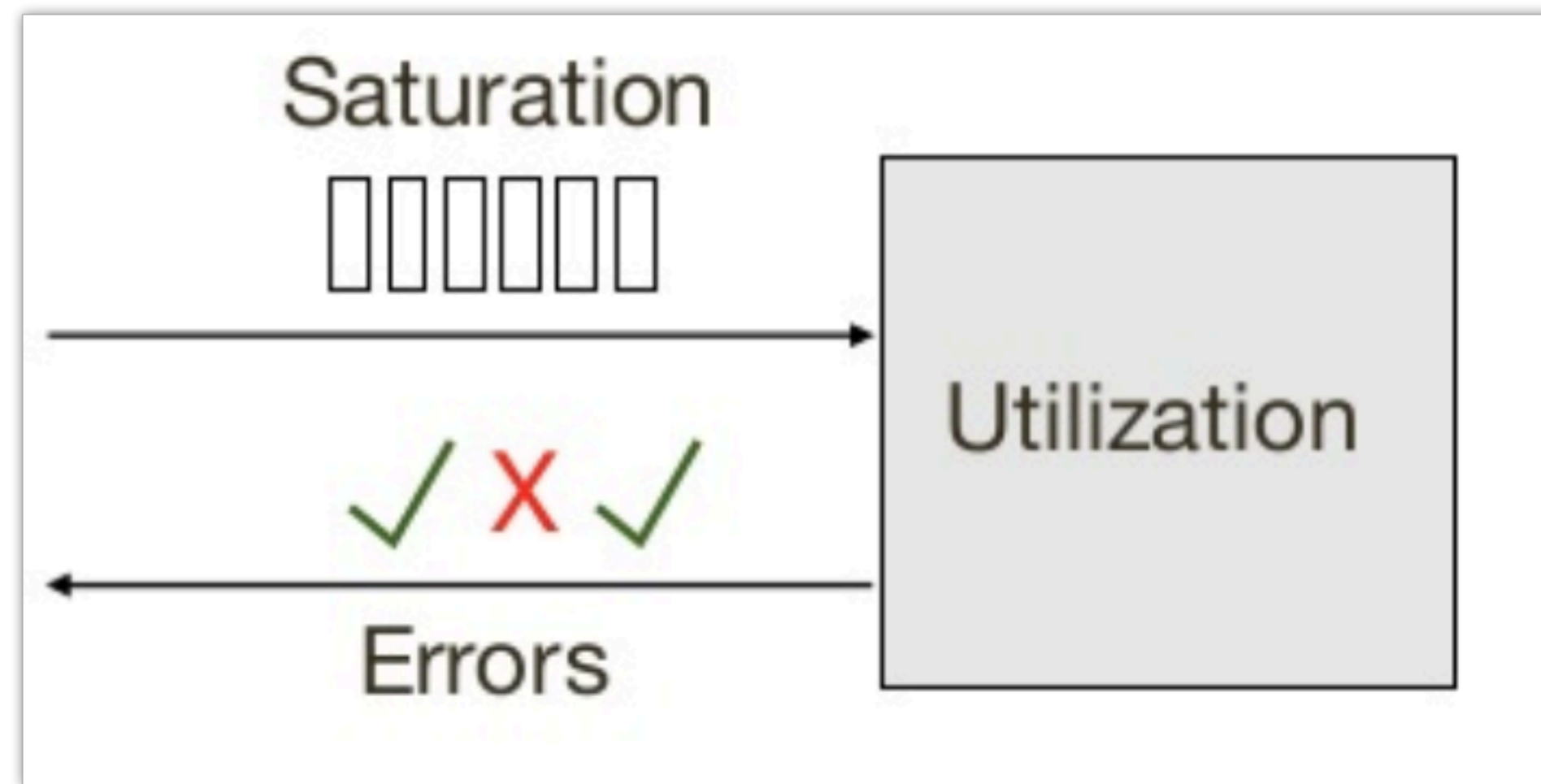


| DEMO

# The RED Method



# | The USE Method





# Metrics Push vs Pull



## Push

- Events
- Precision
- Offline processing



## Pull

- Snapshots
- Approximation/sampling
- Easy to use

# Sources

- Production-Ready Microservices  
<http://shop.oreilly.com/product/0636920053675.do>
- Metrics, tracing, and logging  
<https://peter.bourgon.org/blog/2017/02/21/metrics-tracing-and-logging.html>
- Logging v. instrumentation  
<https://peter.bourgon.org/blog/2016/02/07/logging-v-instrumentation.html>
- Павел Труханов "MathOps или математика перцентилей в мониторингах"  
<https://www.youtube.com/watch?v=qwO-h9Sgfgw>
- Instrumentation  
<https://prometheus.io/docs/practices/instrumentation/>
- Alerting  
<https://prometheus.io/docs/practices/alerting/>