



Understanding Tuples

Lauma Cīrule



“I aim not to make the software; I aim to make it better!”

Lauma Cīrule



Community Days May, 2019

What is tuple?

Why at eazyBI
support we love
them?

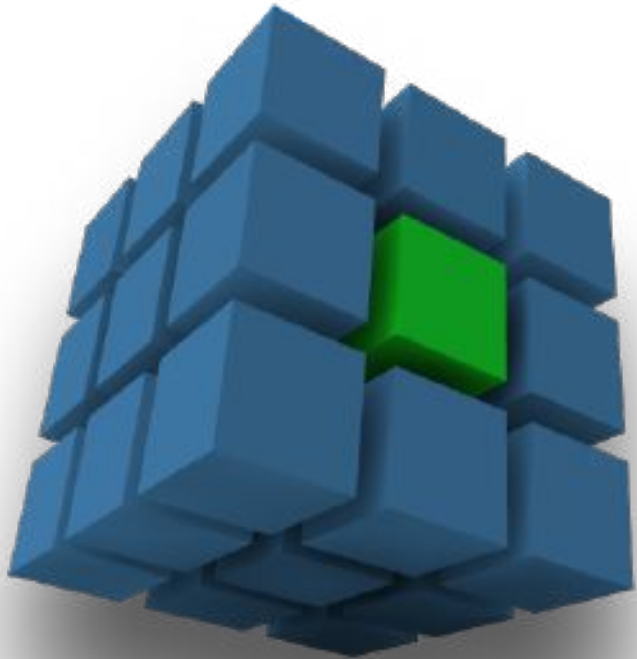
Real life examples
with eazyBI

What is tuple?

A tuple is an intersection of exactly a single member from each dimension (hierarchy) in the cube.

Mark Whitehorn, Robert Zare and Mosha Pasumansky “Fast Track to MDX”
2004, Springer

Tuple always identifies an **exact cell** in the multi-dimensional matrix



```
(  
  [Measures].[Issues created],  
  [Issue Type].[Bug],  
  [Time].[2018].[Q2 2018].[May 2018]  
)
```



Sets

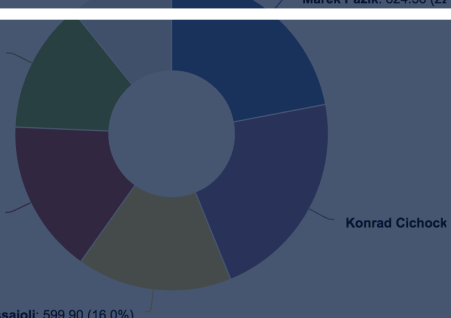
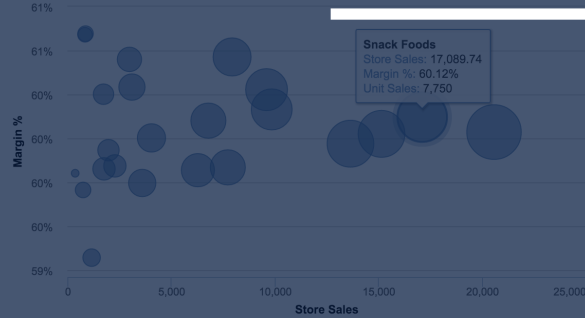
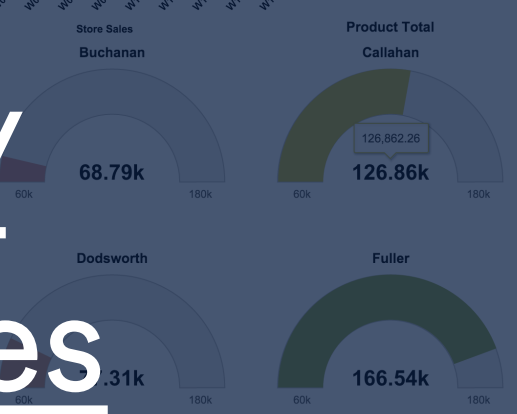
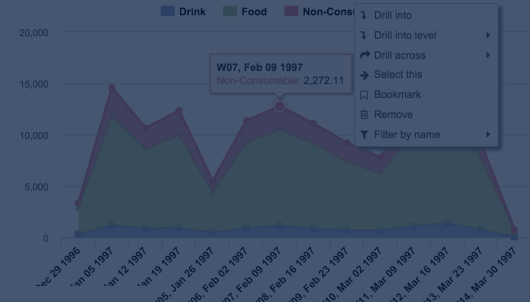
Going through large sets with Descendants(..) can be problematic...
Though sometimes necessary.



Tuple

By using Tuple we can often avoid long running reports, timeouts ...

	Store Sales	Store Cost	Unit	Average
- All Customers	139,628.35	55,752.240		
- USA	139,628.35	55,752.240		
+ CA	36,175.20	14,431.085		
- OR	40,170.29	16,081.073		
+ Albany	4,491.26	1,782.817		
+ Beaverton	2,407.97	950.359		
+ Corvallis	5,695.13	2,281.248		
+ Lake Oswego	2,262.56	907.6493	1,102	6.41
+ Lebanon	5,934.62	2,390.0872	2,826	6.49
+ Milwaukie	2,892.32	1,155.6925	1,345	6.92
+ Oregon City	2,324.62	929.6752	1,113	6.55
+ Portland	2,122.12	847.5187	1,001	6.65
+ Salem	4,251.81	1,697.9039	2,104	6.28
+ W. Linn	2,161.61	871.0418	1,041	6.59



Live demo

<https://eazybi.com/>

[accounts/22010/cubes](https://eazybi.com/accounts/22010/cubes)

Tuple examples

Bugs created

Top Priorities %

User logged
hours

Bugs created

```
(  
  [Measures].[Issues created],  
  [Issue Type].[Bug]  
)
```

Issues created without bugs

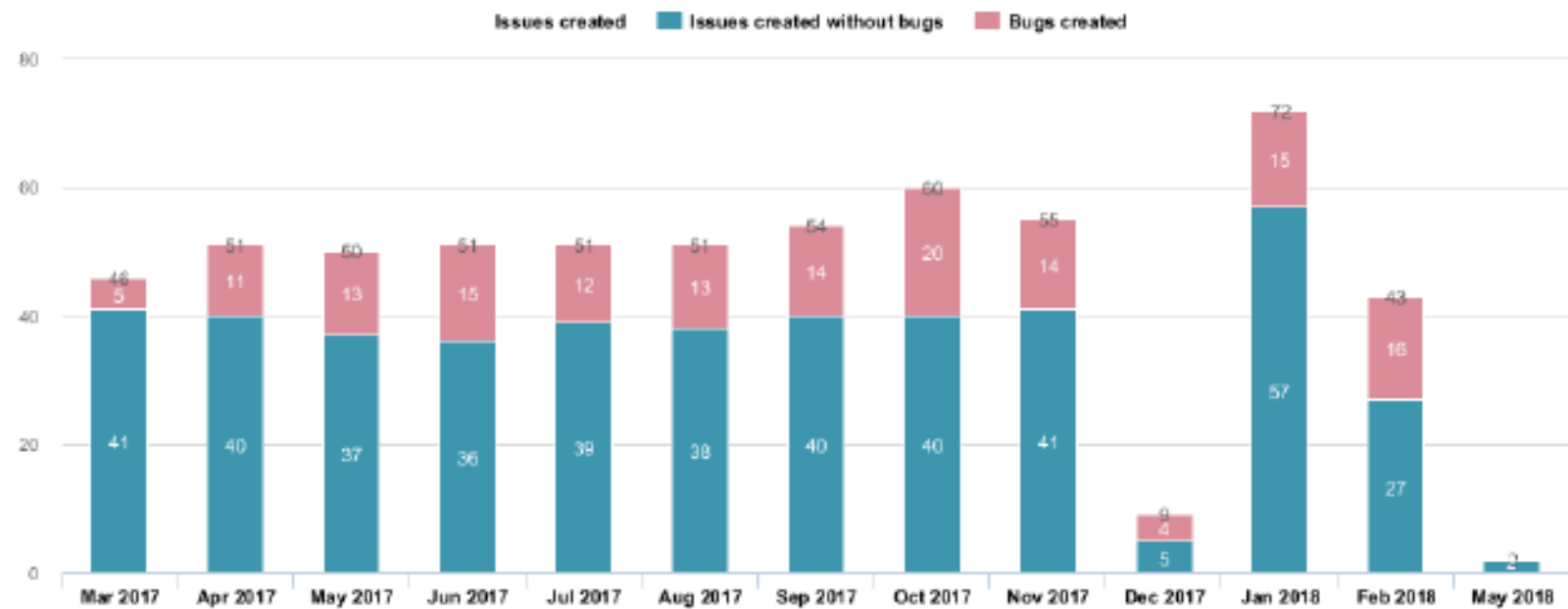
```
[Measures].[Issues created] -  
[Measures].[Bugs created]
```


Tuple examples

Bugs created

Top Priorities %

User logged hours



Tuple examples

Bugs created

Top Priorities %

User logged hours

```
% resolved in Top priorities
(
  [Measures].[Issues resolved],
  [Priority].[Top priorities]
)
/
(
  [Measures].[Issues resolved],
  [Priority].DefaultMember
)
```

Tuple examples

Bugs created

Top Priorities %

User logged
hours

Top priorities

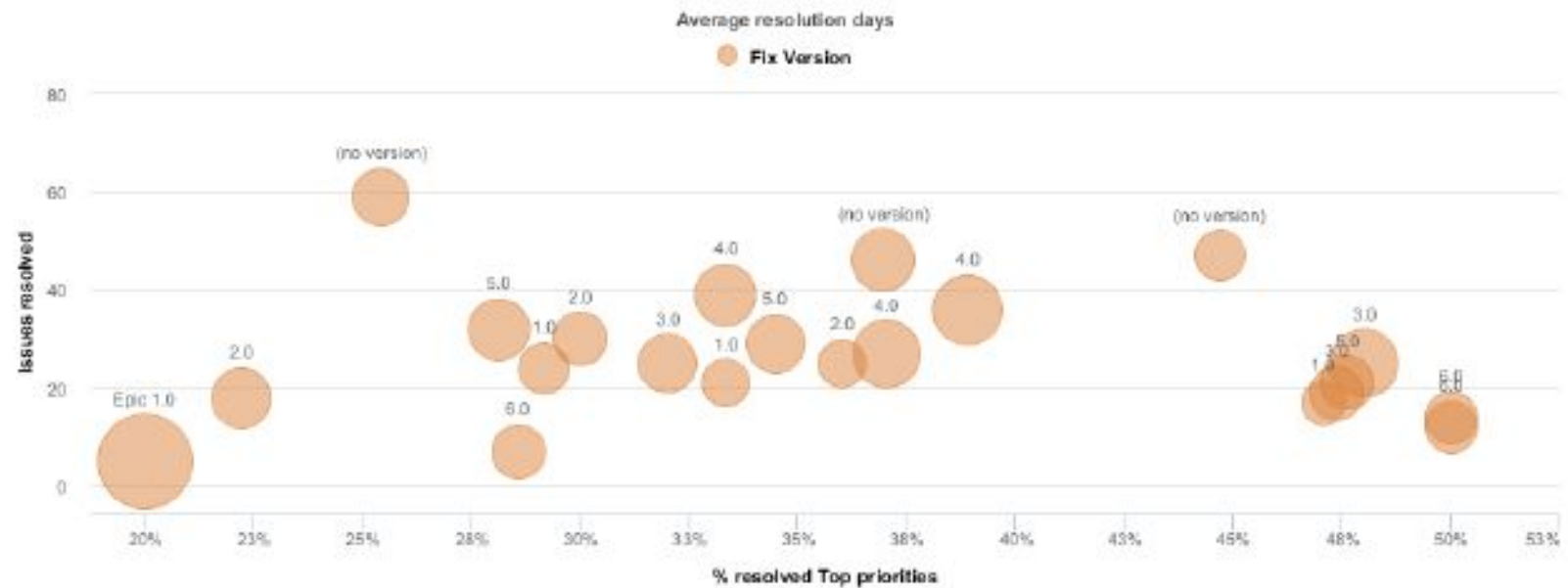
```
Aggregate ( {  
    [Priority] . [Highest] ,  
    [Priority] . [High]  
} )
```

Tuple examples

Bugs created

Top Priorities %

User logged hours



Tuple examples

Bugs created

Top Priorities %

User logged
hours

Hours spent in assigned issues

```
(  
  [Measures].[Hours spent],  
  [Logged by].[User].GetMemberByKey(  
    [Assignee].CurrentMember.Key  
  )  
)
```

Tuple examples

Bugs created

Top Priorities %

User logged
hours

Hours spent in any issue

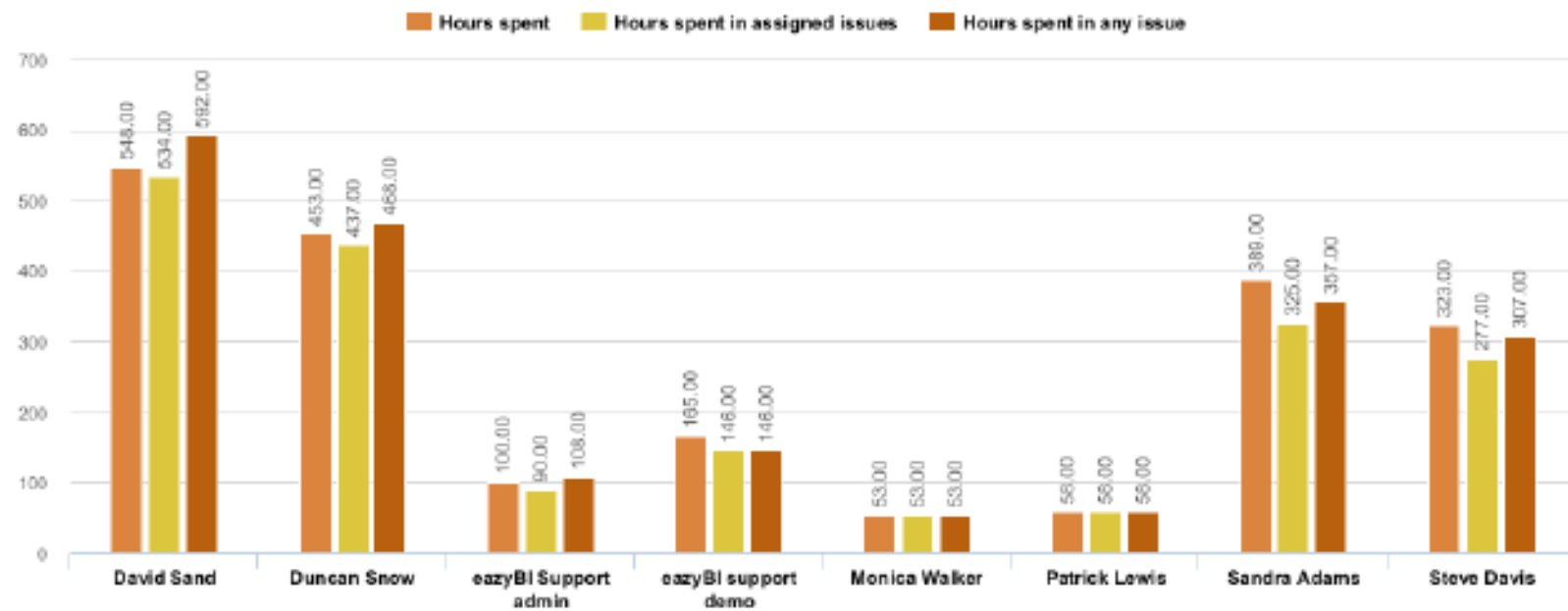
```
(  
  [Measures].[Hours spent],  
  [Logged by].[User].GetMemberByKey(  
    [Assignee].CurrentMember.Key  
  ),  
  [Assignee].DefaultMember  
)
```

Tuple examples

Bugs created

Top Priorities %

User logged hours



Questions?

community.eazybi.com
support@eazybi.com

An aerial view of a city at night, with a red-to-blue gradient overlay. The text "Thank you!" is centered in white.

Thank you!