

Data Engineering Workshop



Tawfik Y. Tawfik

[LinkedIn](#)

```
...
  org = filterByOrg ? study.lead_organization === filterByOrg : true
  Status = filterByStatus ? study.status === filterByStatus : true
  matchStatus) {
...
function filterStudies({ studies, filterByOrg, filterByStatus }) {
  return studies.filter(study => {
    return filterByOrg ? study.lead_organization === filterByOrg : true
    Status = filterByStatus ? study.status === filterByStatus : true
    matchStatus) {
  }
}
```



Data Engineering Workshop

GDSC

Session #6: Data Cube + MDX



Data Engineering Project

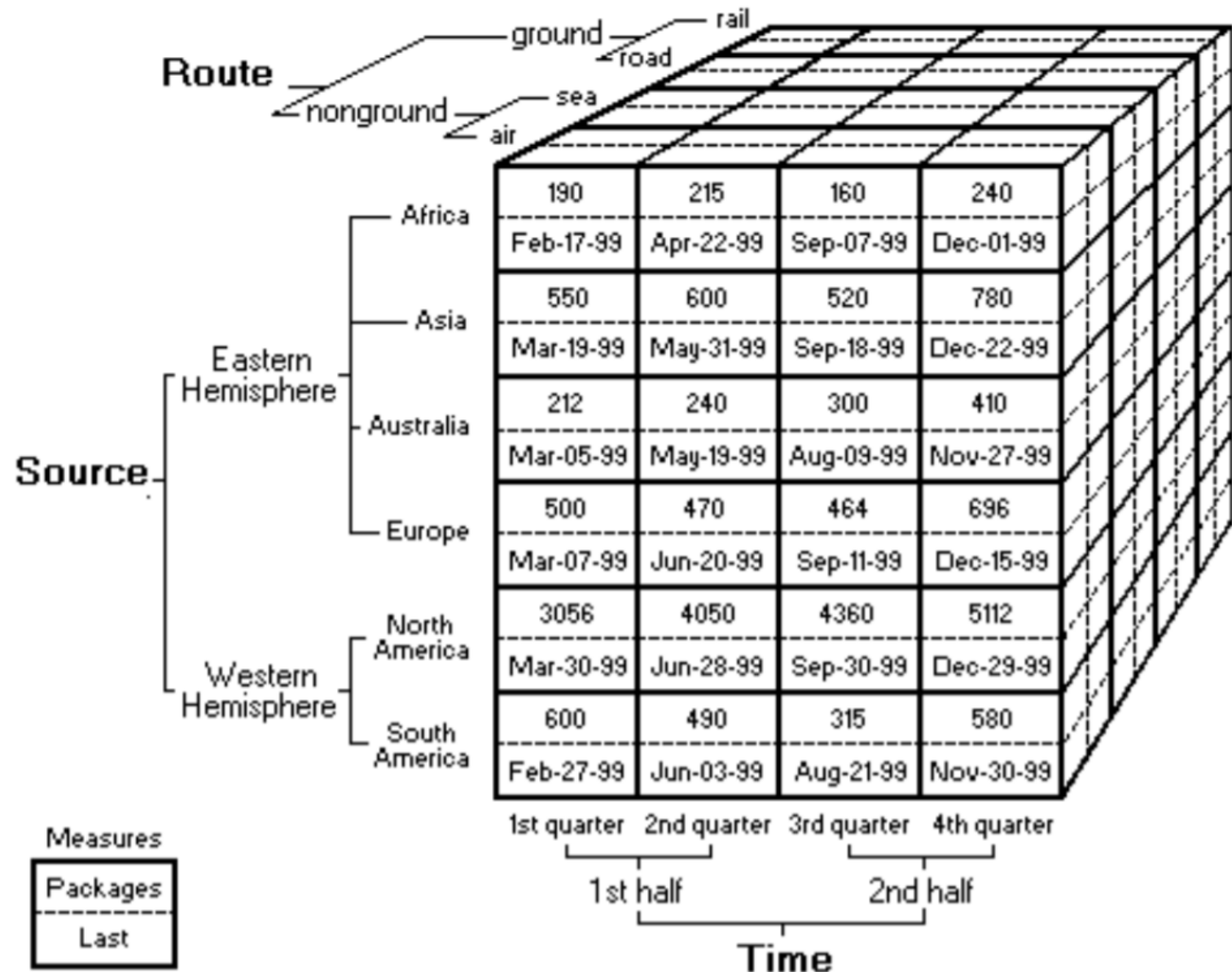
Today's agenda

- Build the Data Cube using Visual Studio.
- Introduction to MDX.
- Use MDX in SQL Server.

Project

Data Cube

- Identify Data Source. Done
- Identify Data View. Done
- Identify Data Cube. Done
- Identify the Hierarchies.
Done
- Deploy. Done



Break Time

Set the timer on 10 mins



Data Engineering Project

MDX

	Sales Amount	Order Quantity
2003	3382979.26720073	7511
2004	3209356.08000063	9616

EX: Display all Internet Sales - sales amount, Internet Sales - Order Quantity that are done in the Calendar Year 2003 and 2004 for Europe Sales.

```
SELECT { [Measures].[Sales Amount] , [Measures].[Order Quantity] } on COLUMNS,  
{[Order Date].[Calendar Year].&[2003], [Order Date].[Calendar Year].&[2004]} on ROWS  
FROM [Sales]  
WHERE [Dim Sales Territory].[Sales Territory Group].members
```

Members Function


Project

MDX – Cont. Members Function in MDX

Dim Customer

Hierarchy: Customer Geography	
Levels:	
All	done by tool
Country	members: Australia, Canada, France, Germany, United Kingdom, US
State_province	members: New South Wales, Queensland, South Australia ...
City	members: Alexandria, Coffs Harbour, Darlinghurst, Goulburn ...
Postal Code	members: 2450, 2010, 2580, 1509, 2060, 2036, 2300, 2113...
Full Name	members: Allen, Anand, Ashe ...

[Customer].[Customer Geography].members

 Google Developer Student Clubs **Will results:** All, Australia, New South Wales, Alexandria, 2450, Coffs Harbour, 2010,..., Canada, ..., France, ..., Germany,... United Kingdom,..., United States,...

Kahoot!

Practice and Fun!

Attention!!!

What do we expect from the project?

- Data Schema in SQL.
- Facts & Dimensions.
- ETL Job in Talend.
- Data Cube.
- Min. 2 MDX Queries.
- One Power BI Visualization.
- Presentation Video.



We're almost done

I wish you all enjoyed.

We'll have a feedback form, and questions form now.

What will happen next?

- Next session #7 -> Power BI + Reviewing the Projects.
- Upload your project files to GitHub (Important).



Thanks

GDSC

Data Engineering Workshop

