

# Module 1 Data Warehouse Concepts and Architectures

Lesson 2: Course topics and assignments

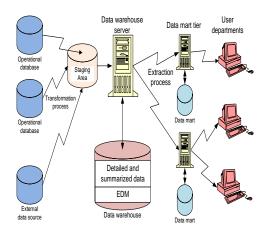


# Lesson Objectives

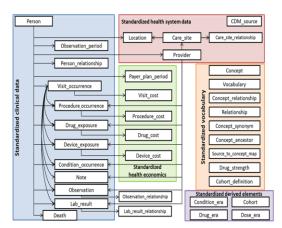
- Understand course topics and course flow
- Understand assessments especially practice and graded problems
- Obtain software



## Course Topics



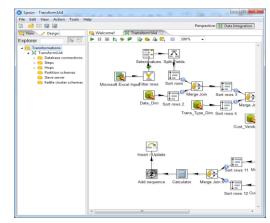
#### **Architectures**



**Schema Design** 



#### **Pivot Table Manipulation**



**Data Integration** 





## Course Flow

Module 1

Module 2

Module 3

Module 4

Module 5

- Motivation and characteristics
- Architectures
- Project characteristics and maturity model
- Employment opportunities
- Multi-dimensional data model
- Microsoft MDX language
- Pivot table tool practice
- Schema patterns and summarizability problems
- Schema integration practice
- Enterprise data warehouse development
- Data integration process concepts
- Change data characteristics
- Data integration techniques
- Architectures and features of data integration tools
- Overview of Talend and Pentaho tools
- Practice with Pentaho Data Integration

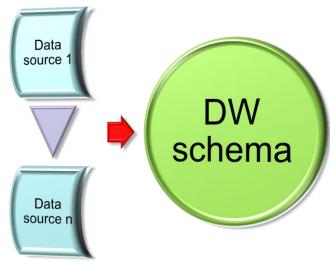




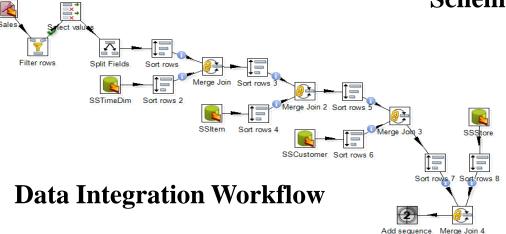
# Assignments

	Order Status						
	Cancelled	Disputed Measures	In Process Measures	On Hold Measures	Resolved Measures	Shipped Measures	Total Measures
	Measures						
Product	<ul><li>Sales</li></ul>	Sales	<ul><li>Sales</li></ul>	<ul><li>Sales</li></ul>	<ul><li>Sales</li></ul>	<ul><li>Sales</li></ul>	Sales
1968 Ford Mustang	3,923					149,346	153,2
1958 Chevy Corvette Limited Edition			1,030			46,205	47,2
1966 Shelby Cobra 427 S/C			2,234	2,576	1,463	42,336	48,6
1982 Camaro Z28			3,722		3,195	97,362	104,2
1949 Jaguar XK 120			3,934	7,182		72,523	83,6
1952 Alpine Renault 1300			12,001			179,072	191,0
1956 Porsche 356A Coupe	5,148					135,479	140,6
1957 Corvette Convertible						137,115	137,1
1961 Chevrolet Impala						83,389	83,3
1965 Aston Martin DB5	3,375			7,048	2,759	93,669	106,8
1952 Citroen-15CV			5,297	5,820		81,773	92,8
1969 Chevrolet Camaro Z28			3,386	1,057		66,304	70,7
1992 Porsche Cayenne Turbo Silver	2,367					99,789	102,1
1948 Porsche 356-A Roadster	1 930					77 738	79.6

### **Pivot Table Manipulation**



**Schema Integration** 







## **Tools**

















# Summary

- Balance concepts, design, software skills, and management practices
- Assignments for schema design, pivot table manipulation, and data integration workflows
- Usage of open source tools for pivot table manipulation and data integration workflows

