Data

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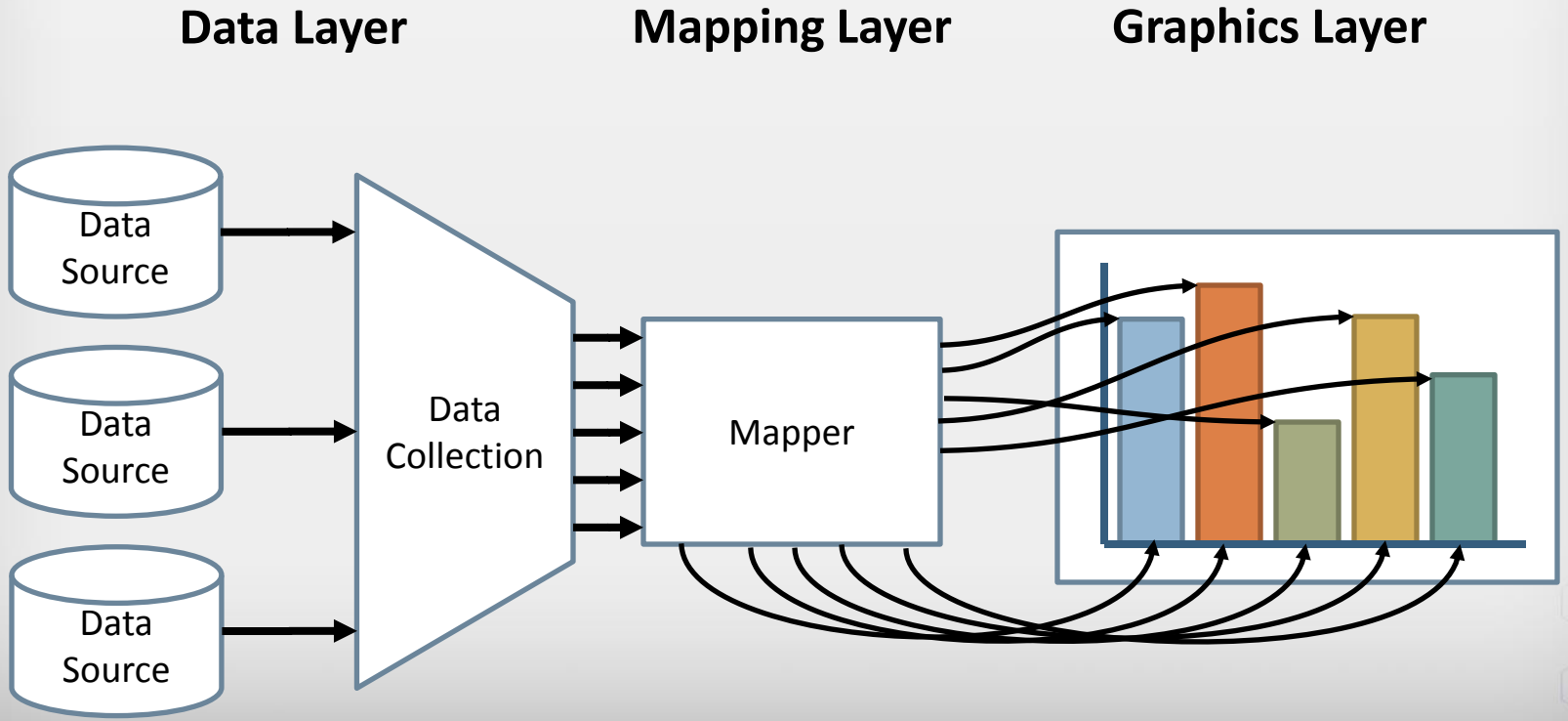
Data Visualization Framework



Data Layer	Mapping Layer	Graphics Layer
• Locating and obtaining data • Importing data in proper format • Relating data for proper correspondence • Data analysis and aggregation	• Associating appropriate geometry with corresponding data channels • Data analysis and algorithms (e.g. contouring)	• Conversion of geometry into displayable image • Decorations • Managing interaction

Data Types

	Discrete (no between values)	**Continuous** (values between)
Ordered (values are comparable)	**Ordinal,** e.g. size: S,M,L,XL,… **Quantitative,** e.g. counts: 1,2,3,…	**Fields,** e.g. altitude, temperature
Unordered (values not comparable)	**Nominal,** e.g. shape: ☐○△ **Categories,** e.g. nationality	**Cyclic values,** e.g. directions, hues

Data as Variables

Science	Databases	Data Warehouses
Independent Variable	Key	Dimension
Dependent Variable	Value	Measure