25 Sep 2018

Hypothetical panel conversation on Data Modeling

On the 24th Sep 2018 I suggested that perhaps it would be a good idea to get a panel of experts on data modeling together and ask them a few questions as to how they would use their data modeling approach to solve the current problem of IT project failures.

As this will not be possible, I decided to set up a hypothetical discussion with the 3 acknowledged data modeling gurus and myself. I have had to delve into their overview of their courses and a book in order to glean what I perceive to be their answers to 10 questions that I would put to them. I can provide you with pdfs of their material if necessary.

See the next page for the 'hypothetical answers' to my questions on how each of the panellists would answer my questions just using the words I found on their course material or in their book. Not all answers may be right, but it is my best guesstimate based on the fact that I may not have interpreted their words correctly.

In addition I will have to assume that as there was not much time for discussion, the panellist could probably have pointed their book or course material and advised that the answers lay therein.

After looking at the answers you now have 2 major choices, how to:

1) Model data - in which case which of the 3 gurus do you follow
2) Learn how to use Ripose and gain the advantage of speed and accuracy over the 3 data modeling approaches

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Panellists' hypothetical answers: How would you use your approach to:

Question	SH	PA	GS	CMR
Define business requirements	Explain data modeling components and identify them on your projects by following a question-driven approach	Self-assessment/Root cause analysis	Enforcement of Business Rules	Conceptual requirements: Produce a Proof of Concept
Design business requirements	Demonstrate reading a data model of any size and complexity with the same confidence as reading a book	Reporting directly to the business	Integration	Identify the business objectives and knowledge
Design business strategies	Apply requirements elicitation techniques including interviewing, artifact analysis, prototyping, and job shadowing	Unconstrained by an IT project mindset	Conflicting Objectives	Use the knowledge model to identify the strategies
Design conceptual data model	Build relational and dimensional conceptual and logical data models, and know the tradeoffs on the physical side for both RDBMS and NoSQL solutions	Data strategy development phase II–iterations	Conceptual, Logical, and Physical Data Models	Conceptual requirements. Produce a Proof of Concept with a knowledge model
Design logical data model				Allocate attributes to the knowledge model
Design logical database design				Generate the most efficient an effective logical database design from the logical data model
Define IT projects	Use a series of templates for capturing and validating requirements, and for data profiling		Data-Driven Approaches	Use the links within the logical database design to determine the priorities of the projects
			Parallel (Blended) Approaches	
			Object-Oriented Approaches	
			Agile Methods	
Teach data modeling	Recognize when to use abstraction and where patterns and industry data models can give us a great head start	Disclaimer/Bad data decisions spiral	Non redundancy	Ripose architect grade: 4 Produce the logical data model 5 Produce the logical database design
		Data Management practices hierarchy structure	Data Reusability	
		Dedicated solely to data asset leveraging	Stability and Flexibility	
	Evaluate definitions for clarity, completeness, and correctness	Performance	Elegance	
		Big data technologies demystified	Communication	
		Monetary cases	Performance	
		Non-monetary cases	Where Do Data Models Fit In?	
			Is Data Modeling Still Relevant?	
			Alternative Approaches to Data Modeling	
Ensure Governance	Validate any data model with key "settings" (scope, abstraction, timeframe, function, and format) as well as through the Data Model Scorecard®	A data strategy is necessary for effective data governance	Completeness	Governance built into the approach. Sign offs at all 3 stages 1) Business goals 2) Strategies (developed from the knowledge model 3) Logical database design (developed from the knowledge model)
		Cost of the lack of architecture/engineering capabilities		
	Leverage the Data Vault and enterprise data model for a successful enterprise architecture	Effective data strategy prerequisites		
Support Processes	Practice finding structural soundness issues and standards violations	Leveraging data management	Process-Driven Approaches	Pseudo code designer
			Prototyping Approaches	