

Re: Attribute-value approach for table design

Source:

<http://www.tech-archive.net/Archive/Access/microsoft.public.access.tablesdbdesign/2006-11/msg00284.html>

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Jeff Boyce wrote:

I understand that some hold EAV in low regard ... I don't find the reasons why (aside from potential performance). Can you point to some of the reasons why you consider it a 'flaw'?

I think I see where you are coming from e.g.

"Exploring Performance Issues for a Clinical Database Organized Using an Entity-Attribute-Value Representation"
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=79043>

I think everyone agrees query performance is slower with EAV but what about SQL DDL? Constraints will involve a lots of conditional code (i.e. using a lot of IIF and SWITCH in Access/Jet terms), which will make INSERTs and UPDATES slower, and be hard to maintain.

But (and this is a big but) all the above assumes EAV was the correct design choice.

I think you'll find that EAV is a common newbie error, right up there with OTLT:

"OTLT and EAV: the two big design mistakes all beginners make"
<http://tonyandrews.blogspot.com/2004/10/otlt-and-eav-two-big-design-mistakes.html>

It's an understandable 'reaction' (what's the opposite of 'epiphany'?) when you're a few hours into your first SQL design project e.g. Why all this hard work linking[sic] tables where one would do? Who needs constraints when I have VBA and a rich event model? I can use autonumber as a generic key[sic], which will prevent duplicates, right?

As for the coupling of 'EAV' and 'flaw'... well, you know that Dorothy Parker quip: "I never seek to take the credit | we all assume Joe Celko said it":

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"The design flaw you are calling a vertical model is actually known as "EAV" or "Entity–Attribute–Value" because it is a common newbie mistake."

<http://groups-beta.google.com/group/comp.databases.ms-sqlserver/msg/a20795c71751de90>

"Look up the EAV design flaw you have re–discovered"

<http://groups-beta.google.com/group/comp.databases.ms-sqlserver/msg/a497108ef4472742>

"It looks like an EAV design flaw, with mixed data and metadata in the same table."

<http://groups-beta.google.com/group/comp.databases.ms-sqlserver/msg/7b6f818709512cf7>

"This design flaw is called the EAV model; it fails in one year or less in production. For fun, try to: 1) Add check constraints and default; 2) Add a PK–FK constraint; 3) write a query with a simple GROUP BY clause — Thomas Coleman posted one of those for an another EAV — total nightmare."

<http://groups-beta.google.com/group/microsoft.public.sqlserver.programming/msg/24622539e2a544ca>

"The name of this design flaw is EAV and there are [lots] of postings about why it is a stupid, dangerous idea. It comes up over and over again with newbies — like Martingales in gambling."

<http://groups-beta.google.com/group/microsoft.public.sqlserver.programming/msg/f9f2a172c72be9f3>

etc etc

Jamie.

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