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highlights

10:14



# -1 A: Data modelling. How to model hundreds of dependent fields, 1:n or as one table?

Go with the one-to-many solution. Each row in the maitnence table should have a car id. I would also suggest a lookup table for car models, so that each row in the cars table would have a model id instead of the model name. Adding a column for each maitenence treatment that the cars should have ...



Thanks Zohar, the maintenance table is depicted in a strongly simplified manner, of course i would use IDs instead. Can you explain the advantage of going that route, beyond the fact that it 's bad style to ignore NF.



No. A surrogate does not provide row uniqueness. In this case the surrogate is totally superfluous. Stick to the name+yom.



see my edited answer.



No. A surrogate (car\_id, model\_id) does not provide **row** uniqueness, as required in the *Relational Model*. A PK on an ID field, provides **record** uniqueness, which is quite a different thing. In this case the surrogate is totally superfluous, therefore it can be removed (or, not added). Stick to the name+yom, which is the set of data columns that will provide row uniqueness. You are welcome to join this chat: **continue this discussion in chat**.



The question was not about row uniqueness, it was about should the OP add 200 columns to the cars table or add a table with an FK to that table. I was going with the assumption that the Id column in the cars table is unique.



My comments were not about the question, they were 10:14 about your answer, hence I posted them on your answer. You are not getting the point. Please follow my comments, and the link, posted on Carl's answer.



@PerformanceDBA I was not aware that I was supposed to provide the entire data model. I was under the impression I was answering a simple question that was "Should I use a 1:n relationship or add 200 columns to the main table?" My answer was only about that question. **Should the OP asks me to**, I would be happy to provide an entire data model.



(a) No one suggested that you should supply a data model, you can answer however you wish. (b) My comments were directed at

nceDBA 11.7k your answer, specifically *Each row in the maitnence table should have a car id ... model id instead of the model name*, which is **incorrect**, because your answer would create duplicate rows, which should not be allowed. (c) **IF** you need an explanation re how ID columns allow duplicate rows, go to to Carl's answer, and follow my comments there. (d) **IF** you do not correct your answer, I will vote it down.



You did not understand my answer, i will edit it tomorow to make it clearer. I mean to keep the cars table and add another one that will keep the maitenence done in each car.



I can't see, let alone understand, what is not written. Separate or additional table or not, the ID fields that you have advised, are wrong. I have provided details in my Answer.



Of course there is no point of keeping an identity column if the other columns in the table might be duplicated! Why would anyone even suggest such a thing? This seems so trivial to me that I I didn't even think about mentioning it. If you think this was my intention you simply did **not** understand my answer. I resent your assumption that everyone other then you don't know the first thing about designing databases. I suggeated a lookuo table, not a duplicated lookup table!

@PerformanceDBA See my edited answer, and please don't assume everyone besides you are stupid. Your comments, and actually your answer also makes you seem arrogant, and not with a good reason. Your downvote was simply because you assume that people doesn't understand that a single unique column does not make row uniqueness. That assumption is simply wrong, and I believe not only in my case, but in most cases.



(a) Thank you for reading the links I provided and getting 10:14 up to speed on Record IDs, perhaps the comments will progress (b) The comments, and your revisions are here for anyone to see

(b) The comments, and your revisions are here for anyone to see. I did not state you "suggested adding an Identity column would solve all of [OP's] problems" or "duplicate lookup table", therefore I cannot defend it. (c) Since you have written "IDs ... prevent relational integrity", which is correct, then why are you recommending them in your example ??? It is self-contradictory. Perhaps, as with the ID fields before you read my links, you do not understand the value of RI



@PerformanceDBA: I've already explained why I would use an auto\_increment column in my answer. Please read it's last paragraph. Unless you suspected that my suggestion to include an auto\_increment column would be enough to ensure data integrity, what is all the fuss about?



Let us continue this discussion in chat.

(d) Why would anyone trade-off relational integrity for "storage space and readability" ??? the mind boggles. (e) Your new model table (love the table & column prefixes!) looks just like mine, except for the additional ID field. (f) There is no fuss at my end. I

have not changed, and the scientific facts have not changed. I don't "suspect", I know. And that knowledge is based on science, not opinion. (c) your self-contradictory advice remains unresolved, delete one or the other (g) Your suggestion to include an auto\_increment column is not enough to ensure Relational integrity.



@PerformanceDBA: you still don't get it. I'm not suggesting replace the relational integrity for storage, I'm claiming you can get both.



I was using your words, in order not to be misunderstood. You stated "Moreover, [Record ID] can lead to having duplicated data where only that column is different, thus causing inefficient storage[,] and prevent relational integrity." I agree with the essence of that. Later you stated "it's to enable a simple, one column base foreign key constraint as well as saving the space needed to keep the hole unique key of each table in it's related table, thus improving both storage space and readability." The two statements contradict each other. It is for you to resolve, to get it.

This can be dealt with easier via Chat ... but you are not taking up the invitation.

Now in my words, Record IDs **prevent** Relational Integrity, while Relational Keys provide it. Thus RKs cannot substituted with IDs. The "cost" of storage for RKs is the cost of storage required for Relational integrity.



Well I disagree. This is getting to be very off topic to SO. You can keep your opinion as well as your downvote, I've head enough of this argument.





10:14 It is a matter of scientific fact, not open to agreement or disagreement or opinion. It is on topic for (a) the question, and more importantly, (b) your answer. SO has nothing to do with it. I can prove my statements. You can't. You are avoiding resolution, by various means, since I brought this up.





I can't help it if you don't understand my claims. I don't see how I can make them clearer. Anyway it's getting late here so I'm out for the night. Will try to find a better explanation for you tomorow. Cheers.

### 7 hours later...





Claims, unsubstantiated claims, are for jokers. Technicians can prove their claims, which is called for when the claim is challenged. Any time you would like to (a) start producing evidence for your claim or (b) have an honest, evidenced, discussion and (c) reach resolution, I would be happy to participate.

### 2 hours later...





I really don't know what you want. my claim is very simple: 19:41 Adding an auto increment column **does not** automatically breaks row uniqueness. I've explained it in my answer and in the comments multiple times, but you seem to think that this is wrong. Please explain your claims if you want to continue this conversation. I'm getting a bit tired of repeating my self and I'll bet you are too.

#### 2 hours later...



Sorry I missed your msg. I did not say a Record Id itself breaks row uniqueness, with or without the "automatic" qualifier, so I have no idea what you are going on about.

Repeating yourself is not required. Repeating yourself re something that was not said is definitely not required. Yes, I am tired of you repeated the same things, without progressing the conversation.

The uniqueness point is closed, thanks. We can stop discussing it. Claim: I didn't make any. You have, and you acknowledge it (4 msgs above). I have challenged your claim. Let's deal with that, and avoid repeating yourself about something else, such as closed points.

I am challenging that second claim (not the row uniqueness claim)

You claimed (a) Moreover, it [Record ID] can lead to having duplicated data where only that column is different, thus causing inefficient storage and prevent relational integrity, which hopefully, means you understand **Relational Integrity**.

Then later, you claimed (b) it's [Record IDs] to enable a simple, one column base foreign key constraint as well as saving the space needed to keep the hole unique key of each table in it's related table, thus improving both storage space and readability. Which appears to be advising a Record ID; knowing that you lose Relational Integrity. So you are (i) contradicting yourself, please explain, and (ii) you remove the very Relational Integrity that you say you want to provide.



First, I'm glad we agreed that having an auto increment columns does not break the row uniqueness. Once we established that understanding, Let me clarify that the only reason to add the auto increment column is to provide a simplified unique identifier for the rows in a table (keep in mind that unique constraints are still there, meaning that the row uniqueness is not compromised in any way). Once you have a single integer column as your primary key, it's easier to create relationships between the tables (using a single column instead of 2,3 or even 10). Also, it's saving the space needed for using the same 2,3 or even 10 columns on both the parent and the child table. instead, you only need to save an integer (4, maybe 8 bytes). Also, it improves performance since the execution plan for joins will only be evaluating a single condition and not 2, 3 or 10 conditions (one for each column in the unique constraint). Keep in mind that unique constraints on each

22:39

table must be kept along with the auto increment column (but never include it, of course). Now I hope that you can see that there is no contradiction between using an auto increment column as your primary key and using a unique constraint (or index) on other columns.



It is not that simple (I appreciate that for small minds such as C J Date, H Darwen, S Ambler, B Karin, it is that simple). (1) the claims you make are false. (2) if you use that method, you will **lose** Integrity that the Relational method has. (3) concerning yourself with storage, in this age and age, when it is cheaper than peanuts, is very strange. Irrelevant to us. (4) which is why I stated "you can't trade-off RI against storage space" which you denied, but now you are confirming.

Again, you are making claims, which I am challenging, and you have not produced any evidence to support your claims. (I am not the claimaint, I am the refuter. The onus is on you.)



Why do you think using the auto increment column as a primary key will cause toy to lose relational integrity, when I've shown repeatedly that by adding a unique constraint / unique index on the other key columns will keep it?



You keep repeating, you keep saying "I have show", you have done nothing of the sort.

It has nothing to do with auto\_increment columns, I would be delighted if you do not mention them again, Stick to the subject:

## **Lost Integrity**

Don't worry about "why do you think .." Do worry about getting your understanding right, getting the facts (which are easily evidenced) right.

You have not **shown** \*that by adding a unique constraint / unique index on the other key columns will keep it [Relational Integrity] " That is just a technique, that I have known for over 30 years, that I have known that fails, for over 30 years. I don't need i(a) it to be explained to me (b) you repeating your claims (without evidence). So, please, do not repeat a claim, just show up, and provide evidence.

Do feel free to **show** it, in the form of evidence.



Perhaps I just don't understand you. can you explain again 22:56 what you mean by Lost Integriry?

\*integrity



(1) Very good point. But in that case, how can you possibly claim that it \*isn't lost ???

Of course, I can explain it, but now I realise, I have to explain it from scratch, because you do not know what you have lost, what you never had. That will take time.

Now, here is how gentlemen handle this. It is not an impasse. First you have to accept that your claims (re RI via ID columns) is not evidenced; that I have challenged it; that you are unable to produce evidence. Second, you have asked me to explain **Lost** 

all rooms

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Discussion on answer by Zohar Peled: Data modelling. How to model hundreds of dependent fields, 1:n or as one table?

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Discussion between
PerformanceDBA and...
PerformanceDBA: Hello
Discussion between

PerformanceDBA and...

PerformanceDBA: Has your impoten

**Relational Integrity**, therefore you don't know what it is. Therefore your second third claim that it is not lost, is absurd. If you accept that, do so in writing. Then you step off the podium. Then I step onto the podium, and explain \*\*Relational Integrity\*\*.



I'm just pointing out that we might be talking about 23:18 different things. there is not much sense on arguing about x, if I think that x is a table and you think it's a chair. Let's assume for the sake of your explanation that I know nothing about Relational integrity. How would you describe it to me?



You have a huge problem with pride, and that shows up as the inability to admit error; to be courteous, when your errors are pointed out (as a consequence of making unfounded claims, and not being able to provide supporting logic ... I just happen to be that person). Here, you can't even act like a gentleman and say, ok, can't support my claim, I back off. You reduce the problem to a chair and a table, which is a method of avoiding responsibility, both of the claim, and of the interaction t thus far.

Why would I, or anyone, want to explain anything to some a pompous person ???

You have labelled me as arrogant. Ok fine. Rude, stupid, but fine. What do you call your behaviour? A skin of prickly pride, empty inside, like a balloon, easily punctured by anyone as sharp as I. Table and chair. How would you describe it to me? like this. I can't explain music to a deaf man.

Once the ears have been opened a little bit, then it is worth trying to explain.



I'll admit that I'm wrong as soon as you can prove it. As far as I'm concerned, you only wrote it but did not prove it. I will not admit a mistake I don't think I've made, and your request for me to do so is a sing that you try to win the argument more then you try to make your point clear.



I do not have an obligation to prove you wrong. You have the cart before the horse. Also, I did not ask you to admit that you are wrong re the claim. Stop lying. I did ask you to admit that you cannot support your claim, which I have challenged.



This **is** an arrogant behavior, like it or not. You wrote in your profile "I am here to engage technically and professionally, not personally or emotionally." so please, stop with the personal attacks and get to the point.



I had that requirement because I am sick of you not 23:34 understanding things; repeating nonsense that has nothing to do with the point being discussed; your balloon of pride; and just to get you to behave like a human being ... in order for the ears to be opened a tiny bit ... such that I **can** answer your new question.





I can't support my claims about X against your challenge, if I'm talking about one X and you are talking about a different X. This is why I wrote in the first place that perhaps I just don't understand you.



nceDBA 11.7k

You wrote in your profile "I am here to engage technically and professionally, not personally or emotionally." so please, stop with the personal attacks and get to the point. Any time you quit the emotional behaviour and start the technical points, I will join you. his is why I wrote in the first place that perhaps I just don't understand you. COrrect.



So, are you going to keep accusing me of being a stupid arrogant bastard or answer the question so that we can get this over with?



That has already been proved, that you have been claiming to retain Relational Integrity, while (now proved) being totally ignorant of what it is. And you have asked me for an explanation of what it is.



Oh, fine. I have no idea what is relational integrity and how to keep it. There, are you happy now? can you now please answer the question?



I did not accuse you of being a "stupid arrogant bastard", I 23:39 accused you of being pridefull, and of making claims about technical aspects that you are ignorant of. I am a strict Catholic, that would be sinful. Ok, you are right, that does imply stupid and ignorant. But you have placed your message in public, on SO. Yes, I will answer the question, but it takes time, the explanation, for someone who is new to the concept. Let me formulate the idea in my mind. Give me five, have a coffe or something. Yes, I am happy now that you have crossed that line, and made an admission.



Great. I'm looking forward to your explanation.



Would you be kind enough to post a question on SO, say "what is Relational integrity" and in the description, explain that PerformanceDBA used the term; stated that it was not possible in RFS, only in RDB, and you would like to know precisely what that means.

Others, many other, have the same problem you have. They have read poisonous books, and they are implementing RFS, thinking that they have RDB.

You, and they, do not know what you are missing.



I'll consider it if I'll find your explanation satisfying. I'll even give you a heads up so that you can paste your explanation as the answer and upvote it, perhaps even accept it.



Thinking ...



answer?

(1) It is a simple and direct thing, for a person who is asking a technical questiion, to post it, and to receive answers, etc. (2) But you can't do that. (3) You operate ass-backwards. You need the answer first (3) Then, if I trust you (God knows I have no reason to!), you will post it and I can post the answer. (4) I don't care if you accept it or not, because it will help many others, who have less crippling pride than you. I have many answers than have more up-votes than the chosen answe
Have I got that right ? I supply the answer to you alone, and trust that you will post the question that you have asked me to

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Discussion between PerformanceDBA and...

PerformanceDBA: Hello
Discussion between
PerformanceDBA and...

PerformanceDBA: Has your impoten