.Net entity framework Evaluation

Initial Problem statement

it is said that the .Net entity framework prevents client-side joins

Problem Statement

You have been asked by your project lead if you could investigate the quality of the queries in the .Net entity framework. In particular it is said the technology prevents client-side joins. You should find some examples of LINQ queries and their translation into SQL which best show how client-side joins are avoided.

Definition of Query

Given the subject matter it's to be believed that the problem statement is talking about database queries and not general queries, the difference being general query is stated on a quick google search as:

noun
plural noun: **queries**
1. **1.**
   a question, especially one expressing doubt or requesting information.
   "if you have any queries please telephone our office"

verb
3rd person present: **queries**
1. **1.**
   ask a question about something, especially in order to express one's doubts about it or to check its validity or accuracy.
   "many people queried whether any harm had been done"

While in database this is more specifically a term for asking the database a question, with a set parameter that the database can understand.

Hypothesis

Although it is unknown if .net prevents client-side joins or not, the question should rather be focused on why this would be the case, and why it's possible LINQ might differ from .net. It should be noted that since queries to databases usually ask for specific types of responses, it seems redundant to make to separate queries and then create a join on the client-side, which would explain why it's prevent, also the question arises if you ever should do a client side join, as the two separate queries to the database are not called at the same time,

making it possible for changes to have happened in the database, which could result in errors on the client-side when joining tables.

Research

From initial searching, it seems that .net entity framework does allow client-side joins, without either the use of SQL or LINQ which uses SQL, it does however use these to do queries to the database. However, it should be noted that this is highly discouraged, as the general idea of sending 2 or more ever increasing in size tables, over a network to then implement a custom-tailored join function, can in most cases have negative performance gains compared to having the database do it.

It also should be noted that the database content is structured specifically for the databases functions so asking for the join on the database side usually is faster than joining tables on the client-side, this has the added benefit of only having to send a set size of the two or more tables combined in a singular join.

It should also be noted that making the so called custom-tailored have also been criticized as being redundant by many different programmers on stack overflow, as the argument pointed out remaking all required database functionality to attempt to improve the performance is like reinventing the wheel.

Conclusion

.Net entity framework does allow for client-side joins, however this is not a recommended cause of action.

30 Min diaries

First 30 mins

With some preexisting knowledge on database that although lacking made it possible to know a few things beforehand, I did have to research the definition of queries, as the functional term wasn't in my mind at the time, and reading up on it reminded us of what it was.

Likewise, the problem statement is very vague, it says .net doesn't while LINQ does, and since my previous knowledge of databases, we remembered that all database actions happens on the database to avoid conflict of data, although this is personal memory and should be research to ensure accuracy on the statement in the hypothesis.

Second 30 mins

Although it was difficult at first finding out information about .Net entity framework ability to do client-side joins, it mostly came down to us searching for .net cases and not .Net entity framework. This resulted in more general answers about database joins, and was only at the endpoint of the 30 mins that we searched for .Net entity framework specifically.

Struggles

The first major struggle was our own inexperience with database terms in general, pulling from memory aren't a reliable source of information when you don't have a degree in that department, so searching for answers on this threw a wrench in our initial progress.

The second was searching for .net related join cases instead of .Net entity framework, since we mostly just got information that expected preexisting knowledge of the subject matter to a degree, and our database knowledge wasn't at the level of quality that was needed to ensure validity, resulting in extended searching to verify the content.

The final if it's even a major issue was the difference between peoples statements, although it was generally frowned upon, one individual seemed to blog post about how effective it was to implement, contradicting what the general public says.

Search history

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[c# - Entity Framework Join 3 Tables - Stack Overflow](#)stackoverflow.com
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[https://www.google.dk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjFtenom4TX AhWIUlAKHR0QD8UQFggmMAA&url=https%3A%2F%2Fstackoverflow.com%2Fquestions%2F21 051612%2Fentity-framework-join-3-tables&usg=AOvVaw0b3qcqy0siva1HoRhacArc](#)www.google.dk
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