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| --- | --- | --- |
| EF Concern? | EF ok | General rules |
|  |  | ·        Always use primary keys and use INT IDENTITY for primary keys |
| x |  | ·        Create foreign keys |
| x |  | ·        Commenting your code |
| x |  | ·        Don’t immediately delete database objects |
| x | x | ·        Ensure all changes are backwards compatible |
| x |  | ·        Ensure all schema and data change scripts can be rerun. |
| n/a | n/a | ·        Protect sensitive data. |
| n/a | n/a | ·        Use a semicolon to terminate SQL statements. |
| x |  | ·        Avoid Implicit conversions |
|  |  |  |
|  |  | Data Types |
| x |  | ·        Use DateTime2(2) |
| x |  | ·        Never use float |
| x |  | ·        Don’t put delimited lists inside of columns. Maintain the atomicity and purpose of the data type. |
| x |  | ·        Bit (Boolean) columns should start with “is” |
| x |  | ·        Use VARCHAR (X) instead or NVARCHAR (X) |
| x |  | ·        Use of VARCHAR (Max) or NVARCHAR (Max) |
| x |  | ·        Be explicit on the size for VARCHAR values |
| x |  | ·        Use VARCHAR (50) when a variable text column is needed |
| x |  | ·        Use a TINYINT or SMALLINT where it makes sense |
|  |  |  |
|  |  | General Naming Conventions |
|  |  |  |
|  | x | ·        Avoid using numbers; if a number is absolutely required, spell it out as a word. |
|  | x | ·        Database and object names should not use keywords |
|  | x | ·        Database names should be singular, not plural and should be named after the context they are persisting |
|  | x | ·        Table names should be singular, not plural |
|  | x | ·        Associative Tables should use the names of their foreign keys |
|  | x | ·        Column Names should provide a clear, concise description of the attribute in mixed case, without prefixes or underscores. |
|  | x | ·        ‘Camel capitalization’ (i.e., mixed case) should be used on all identifiers (for example, FirstName, LogDetail, AcctSysId, LkupCountryCode, @ErrNum, etc). |
|  | x | ·        Don't start stored procedures with "sp" |
|  | x | ·        Objects should be explicitly named |
|  | x | o   Primary Keys |
|  | x | o   Foreign Keys |
|  | x | o   Default Constraints |
|  | x | o   Indexes |
|  | x | ·        Avoid acronyms for object names |
|  | x | ·        Avoid using product-specific names, or names whose meaning is subject to change (Schema, DCN159) |
|  |  |  |
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|  |  | Recommendations |
|  |  |  |
|  | x | ·        Normalize to Third Normal Form (3NF) |
| x |  | ·        Choose appropriate file groups for objects. |
| x |  | ·        INSERT column list. |
| x |  | ·        INSERT INTO column list |
|  | x | ·        Default values |
|  | x | ·        Use WITH SCHEMABINDING in view declarations |
| x |  | ·        Using BETWEEN for DATETIME ranges. |
|  | x | ·        Indexes |
|  | x | o   Don’t create unnecessary indexes |
|  | x | o   Correct Index Design |
|  | x | ·        Schemas |
| x |  | ·        Multi-part object names |
| x |  | ·        Avoid complex conditionals in the WHERE clause. |
| x |  | ·        Avoid implicit casting |
| x |  | ·        Avoid Select \* |
| x |  | ·        Avoid Dynamic SQL |
| x |  | ·        Avoid ODBC functions such as { fn NOW() }, use TSQL versions instead |
| x |  | ·        Avoid cursors and loops |
| x |  | ·        Avoid making all columns nullable |
| x |  | ·        Avoid subqueries |
| x |  | ·        Avoid query hints |
| x |  | ·        Avoid Multi-statement User Defined Functions (UDFs) |