Entity Framework Core 3.0

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Agenda

- How we ended up here
- Entity Framework 6.3
- Entity Framework Core 3.0

How we ended up here

- Entity Framework pre-6.0
- Entity Framework 6.0
- .NET Core and Entity Framework Core
- .NET Core 3 with WinForms/WPF/…
- Entity Framework 6.3

Entity Framework 6.3

- Currently still work in progress
  - Similar to .NET Core 3.0
- Release together with .NET Core 3
  - September 2019
- Facilitate migrating existing applications that use EF 6 to .NET Core 3.0
- EF Core still recommended path for the future

Demo

Entity Framework 6.3

- Preview limitations
  - Currently preview5
  - Migrations only on .NET FW project
  - Designer only on .NET FW project
  - No EDMX for building

Entity Framework Core 3.0

- Next major version
  - Significant changes internally, some new features
  - Even breaking changes (https://docs.microsoft.com/en-us/ef/core/what-is-new/ef-core-3.0/breaking-changes)
  - https://docs.microsoft.com/en-us/ef/core/what-is-new/ef-core-3.0/features
- .NET Standard 2.1 only

Entity Framework Core 3.0

- LINQ client side evaluation
  - LINQ pipeline rework (to prevent regressions)
- No longer part of ASP.NET Core shared framework
- dotnet ef not part of .NET Core SDK
  - dotnet tool install --global dotnet-ef --version <exact-version>
- Cosmos DB support
- C# 8 support
- Property bag entities

Entity Framework Core 3.0

- FromSql, ExecuteSql, ExecuteSqlAsync
- QueryTypes merge
  - HasNoKey, DbQuery<T>, Query<T>
- Backing fields are used by default
- String and byte array keys are not client-generated by default
  - Before GUID
- Migration IDs are now generated using the invariant culture's calendar

Demo

Q & A