



Deep Drive Into ASP.Net Core 2.1 (Day 2)

Presented by
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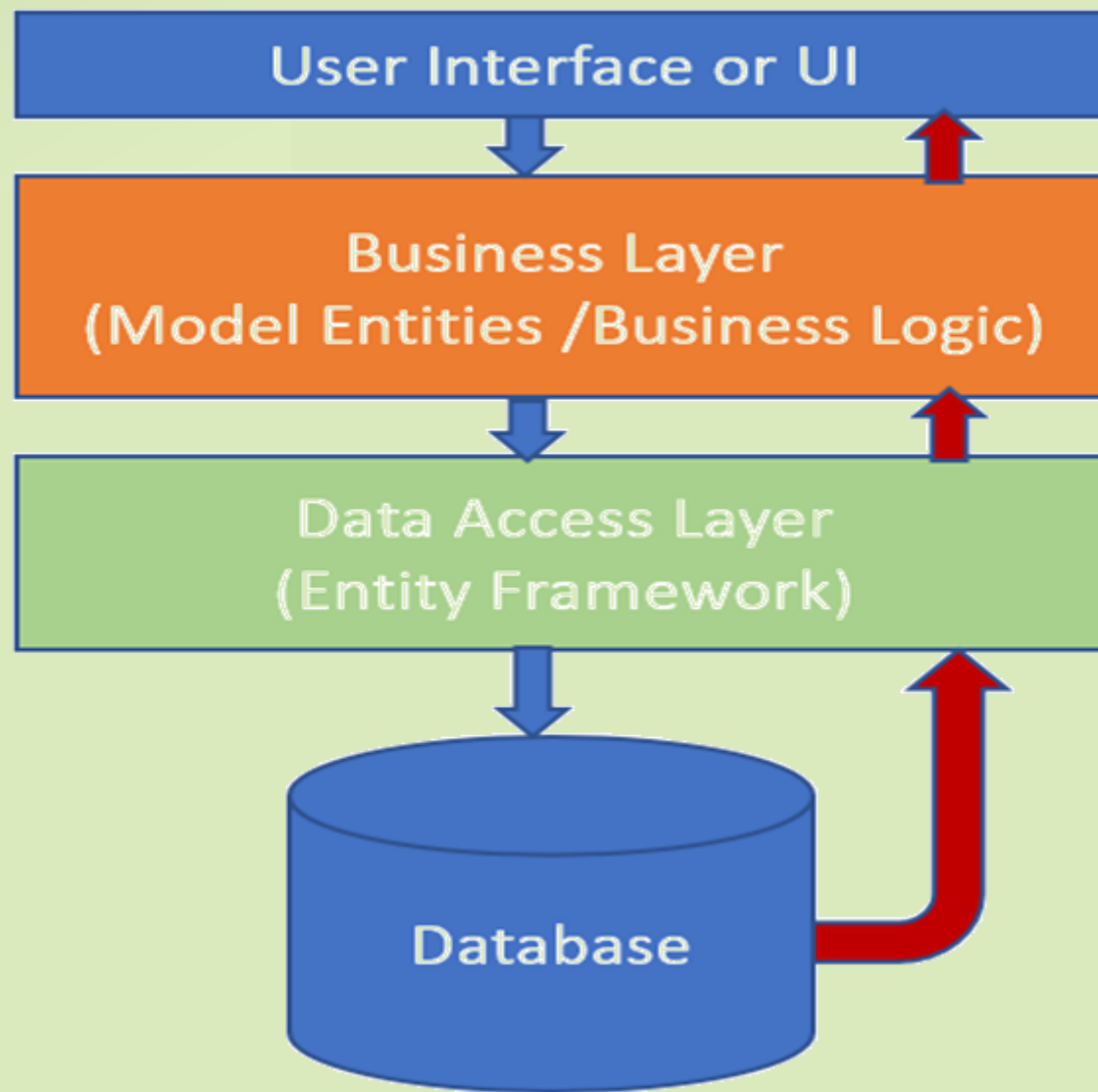
<https://github.com/debasis-saha>

- ❖ Concept of Entity Framework
- ❖ About Entity Framework Core
- ❖ Razor Views
- ❖ CRUD Operations
- ❖ Logging
- ❖ Diagnostics
- ❖ Q n A

About Entity Framework

- ☐ It is an Open Source Framework
- ☐ Support ORM (Object Relational Mapping) Model
- ☐ Map Database Tables to Classes & Objects
- ☐ Provides high level abstraction for deals with DB
- ☐ Developers not worried about Tables or Database
- ☐ Use LINQ Syntax to Query Database
- ☐ Can be used in both Code First & DB First Approach





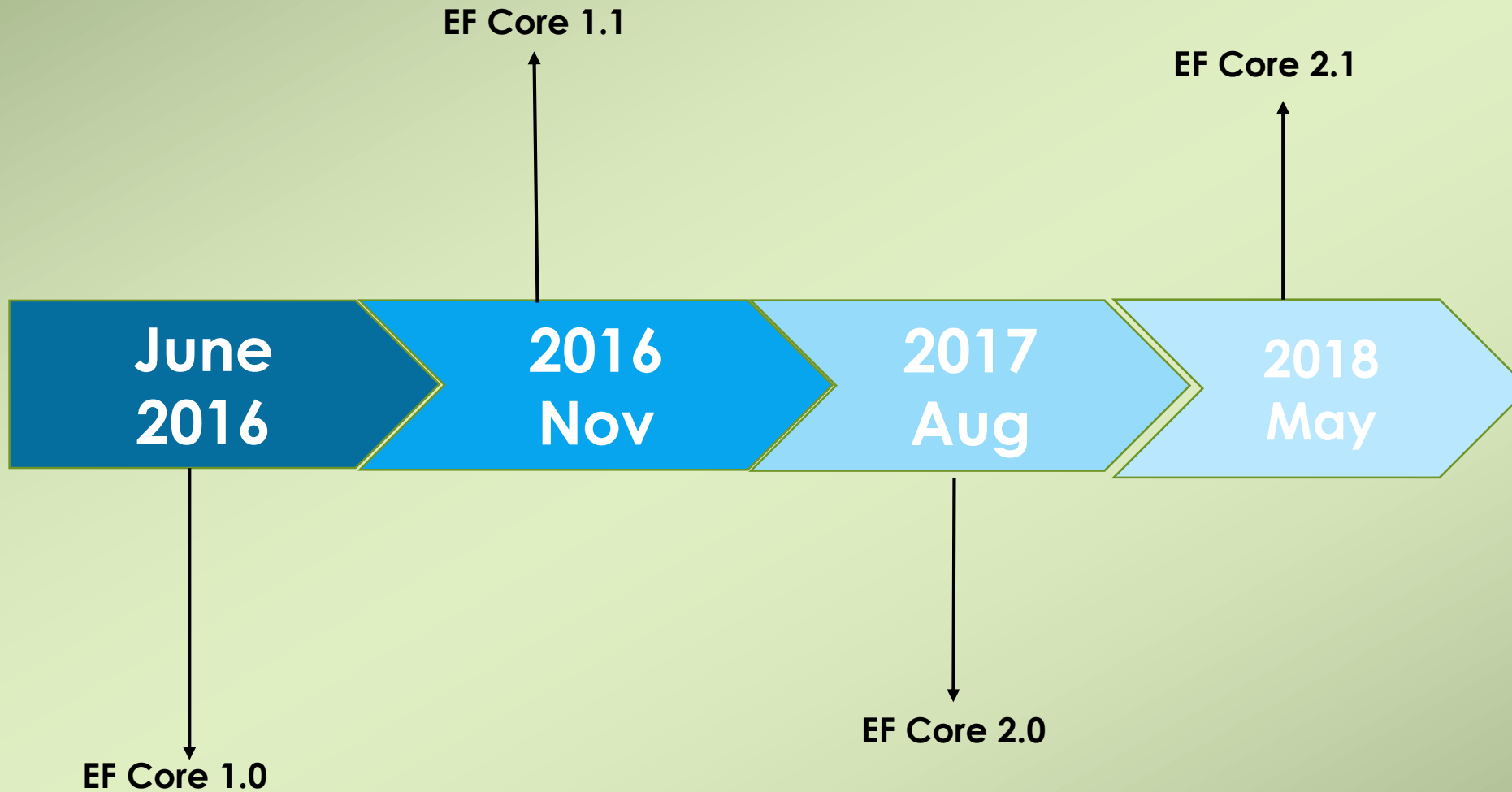
Features of Entity Framework

- ☐ **It Support Cross Platform compare to ADO.Net**
- ☐ **It always create EDM (Entity Data Model) Class on basis of data objects or Tables**
- ☐ **It uses LINQ to fetch the data from Database**
- ☐ **It maintain its own transaction management**
- ☐ **It provides default caching for data fetching time**
- ☐ **It also support data annotations or Fluent API for any type of validations**

About Entity Framework Core

- ☐ **Entity Framework Core is Introduced in 2016**
- ☐ **It is the higher version over Entity Framework 6.0**
- ☐ **It is still in evolving state by the Microsoft**
- ☐ **It can operate in any OS (Windows, Linux or Mac)**
- ☐ **It required .Net Framework 4.6 or Above**

Entity Framework Core Version History



Entity Framework Core can Be Used

- ☐ .NET 4.5.1+ Based Applications
- ☐ .NET Core Based Applications
- ☐ UWP Apps (In Testing Phase)
- ☐ Xamarin (In Development Phase)

Entity Framework Core Not Support

- ☐ No EDMX (XML) based Modeling
- ☐ Automatic Migration
- ☐ Entity SQL
- ☐ Oracle Support (In Development Phase)

New Features of EF Core

- ☐ Batch Insert, Update and Delete
- ☐ Unique Constraints
- ☐ Extensible
- ☐ Supports IOC's
- ☐ Smarter Queries

A horizontal flowchart with three blue chevron-shaped boxes pointing from left to right. The first box contains the text "Define Model / Class Objects". The second box contains the text "Create Migration File". The third box contains the text "Apply Migration to DB".

```
graph LR; A[Define Model / Class Objects] --> B[Create Migration File]; B --> C[Apply Migration to DB]
```

**Define Model /
Class Objects**

**Create
Migration
File**

**Apply
Migration
to DB**

Concept of Razor View

- ☐ Razor is a mark-up syntax that lets you embed server-based code into web pages using C# and VB.Net.
- ☐ The Razor syntax is a template markup syntax, based on the C#
- ☐ The namespace for Razor Engine is `System.Web.Razor`
- ☐ File extension must be `.cshtml`

DEMO

**Create a Employee CRUD
Related UI using Entity
Framework Core**

- ☐ **.Net Core support Logging API with Variety of Logging Providers.**
- ☐ **Implement Logs use ILogger<T> objects**
- ☐ **We can plug third party logging framework also.**
- ☐ **To Add Default Logging Provider, use**
logFactory.AddConsole();
logFactory.AddDebug();

- ☐ **File Formats (INI, .JSON or .XML)**
- ☐ **Command Line Arguments**
- ☐ **Environment Variables**
- ☐ **In Memory .Net Objects**
- ☐ **An Encrypted User Store like Azure Key Vault**
- ☐ **Custom Third Party Providers**

1. Add Logging Service in the ConfigureServices()

```
services.AddLogging();
```

2. Inject ILoggerFactory in Configure Method as Arguments.

3. Add the logging method to active the logging like.

```
logger.AddConsole();  
logger.AddDebug();
```

4. Now use the ILoggerFactory from create class to activate logging.

1. Add **Application Insight Telemetry** from Project Options
2. Can Select Azure Server or Local Server for the Analysis
3. Run the Projects and check Application Insight Options from Toolbar

DEMO

Implement Logging & Diagnostics in Employee Models

THANK YOU For Attending the Session

Session Resource is Available at –

- **Presentations & Sample Code :-**

https://github.com/debasis-saha/Asp.Net_Core_Session/tree/master/Day%202

- **Events Recorded Video –**

<https://www.youtube.com/watch?v=Hrz7eMA8CbM&t=1s>