Yesterday :—

1. File IO and serialization

2. Binary :— Microsoft own syntax of serialization

3. JSON :— Generic Deserialize <type>

4. XML :— XML serializer

    ↳ typeof (Emp)

      ↳ to generate XML schema

   ↳ Using this schema template values of empObj gets saved in a Data.xml document.

   ↳ all Public Data by default gets stored.

[Serializable]

↑

attributes

↑

tells CLR about persisting object type on Hard Drive.

[windows]

5. Reflection :—

Reading type metadata <u>dynamically</u>.

dynamically → without adding .dll file <u>OR</u>
assembly reference to a project.

    ↳ Assembly class ⟶⟶ load remote
                                assembly and returns
                                its reference to
                                your application.

                               •) This class can
                                invoke loaded
                                assembly.

```
asm . GetTypes ( ) ;
   ↳ type . GetMethods ( ) ;
         ↳ method . GetParameters ( ) ;

   . type . GetCustomAttributes ( ) ;

   . type . GetMembers ( ) ;

   . type . GetProperties ( ) ;
```

Custom Attribute

class Company Attribute

$$X$$

if (att   is   Company)

is operator

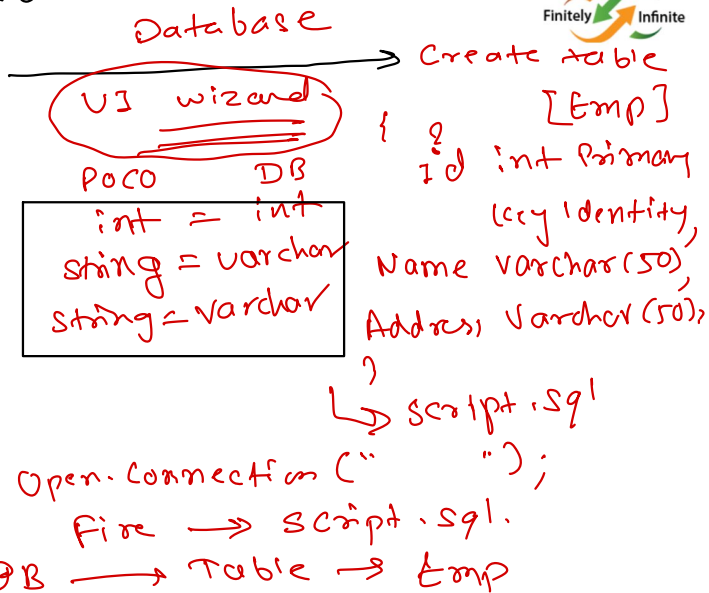{   "System. Reflection. Attribute" ==

   "_Namespace of Proj . Company"

}

```csharp
public class Emp    POCO
{
    [key]
    Prop. int Id;  →key
    Prop. string Name;
    Prop. string Addrs;

}
Emp e' = new Emp(),
e'.Id = 10;
e'.Name = "Ganesh";
e'.Addrs = "Pune";
```

Database ——————→ Create table

UI wizard →→

POCO   DB
int = int
string = varchar
string = varchar

[Emp]
{
  Id int Primary
     key Identity,
  Name varchar(50),
  Address varchar(50),
}
↳ Script.sql

Open.Connection ("   ");
Fire → Script.sql.
DB → Table → Emp

[Table CTN = "Employee")]
public class Emp

[Column CCN = "EId", CT = "int")]
prop. int Id

[CN , CT]
prop. string Name
CN   CT
prop. string Address

}

Table Attri   Create table
Class   Employee

PropertyInfo = EmpType . GetProperties()

[ ]
  Id
[ ]   } column
  Name
[ ]
  Addres

column =   proptype . GetAllAttributes.
Attribute.

Reflection :—

- ORM Framework
  - Hibernate — Java
  - Entity Framework — .NET
- Intellisense Like Visual Studio 2022
- Loading & Invoking Assemblies
  ↳ Dynamically.

C# was announced in Year 2002

C# 1.0 /2002: Classes, Properties, Events, Delegate, struct

C# 2.0 Y2005: Partial classes, Generic, Nullable Types, Anonymous Methods, Predicate delegate, Iterator

C# 3.0 Y2008: Implicit type, Auto-Properties, Object Initializer, Anonymous Type, Lambada Expression, Extension method, LINQ.

C# 4.0 Y2010: Prallel Prog - Task Parallel library. Prallel LINQ, Named & Optional parameters, Dynamic keyword.

C# 5.0 Y 2012: Asyac and Await

C# 6.0 Y2015: String Interpolation.

C# 7.0 Y2017: Out variable, Tuples.

Finitely Infinite

partial keyword → complier

Finitely Infinite

Server

class cmath
5 Add
Sub
Square

3

Compile

mymath.csprj

partial class
gets compiled into a single
class.

→ msil

Prob :-
logic is scattered
in multiple
physical file
of same type.

check-in

Rohit

p. partial class cmath

int Add (x , y)

3

Pravin

p. partial class (math

int Sub(x,y)

Vishal

p. partial class cmath

int Square (a)