FlightManagementCompany_LINQ_EFCore_Troubleshooting

Error 1:
The type or namespace name 'Flight' could not be found (are you missing a using directive or an assembly reference?)

Solve 👍

```
using FlightManagementCompany_LINQ_EFCore.Models; // Ensure this namespace matches your Flight model's namespace
```

Error 2:
Introducing FOREIGN KEY constraint 'FK_FlightCrews_CrewMembers_CrewMemberCrewId' on table 'FlightCrews' may cause cycles or multiple cascade paths. Specify ON DELETE NO ACTION or ON UPDATE NO ACTION, or modify other FOREIGN KEY constraints.
Could not create constraint or index. See previous errors.

Solve 👍

```
  constraints: table =>
 {
     table.PrimaryKey("PK_FlightCrews", x => new { x.FlightId, x.CrewId });
     table.CheckConstraint("CK_FlightCrew_RoleOnFlight", "[RoleOnFlight] IN
('Pilot','CoPilot','FlightAttendant')");
     table.ForeignKey(
         name: "FK_FlightCrews_CrewMembers_CrewId",
         column: x => x.CrewId,
         principalTable: "CrewMembers",
         principalColumn: "CrewId",
         onDelete: ReferentialAction.Cascade);
     table.ForeignKey(
         name: "FK_FlightCrews_CrewMembers_CrewMemberCrewId",
         column: x => x.CrewMemberCrewId,
         principalTable: "CrewMembers",
         principalColumn: "CrewId",
         onDelete: ReferentialAction.Cascade);
     table.ForeignKey(
         name: "FK_FlightCrews_Flights_FlightId",
         column: x => x.FlightId,
         principalTable: "Flights",
         principalColumn: "FlightId",
         onDelete: ReferentialAction.Cascade);
     table.ForeignKey(
         name: "FK_FlightCrews_Flights_FlightId1",
         column: x => x.FlightId1,
         principalTable: "Flights",
         principalColumn: "FlightId",
         onDelete: ReferentialAction.Cascade);
 });
```

Remove those parts of code 👍

```
table.ForeignKey(
    name: "FK_FlightCrews_CrewMembers_CrewMemberCrewId",
    column: x => x.CrewMemberCrewId,
    principalTable: "CrewMembers",
    principalColumn: "CrewId",
    onDelete: ReferentialAction.Cascade);
```

```
table.ForeignKey(
    name: "FK_FlightCrews_Flights_FlightId1",
    column: x => x.FlightId1,
    principalTable: "Flights",
    principalColumn: "FlightId",
    onDelete: ReferentialAction.Cascade);
```

Error 3:
Introducing FOREIGN KEY constraint 'FK_Tickets_Bookings_BookingId1' on table 'Tickets' may cause cycles or multiple cascade paths. Specify ON DELETE NO ACTION or ON UPDATE NO ACTION, or modify other FOREIGN KEY constraints.
Could not create constraint or index. See previous errors.

Solve 👍

In this code 👏

```
constraints: table =>
{
    table.PrimaryKey("PK_Tickets", x => x.TicketId);
    table.CheckConstraint("CK_Ticket_CheckedIn", "[CheckedIn] IN (0,1)");
    table.ForeignKey(
        name: "FK_Tickets_Bookings_BookingId",
        column: x => x.BookingId,
        principalTable: "Bookings",
        principalColumn: "BookingId",
        onDelete: ReferentialAction.Cascade);
    table.ForeignKey(
        name: "FK_Tickets_Bookings_BookingId1",
        column: x => x.BookingId1,
        principalTable: "Bookings",
        principalColumn: "BookingId",
        onDelete: ReferentialAction.Cascade);
    table.ForeignKey(
        name: "FK_Tickets_Flights_FlightId",
        column: x => x.FlightId,
        principalTable: "Flights",
        principalColumn: "FlightId",
        onDelete: ReferentialAction.Restrict);
    table.ForeignKey(
        name: "FK_Tickets_Flights_FlightId1",
        column: x => x.FlightId1,
        principalTable: "Flights",
        principalColumn: "FlightId",
        onDelete: ReferentialAction.Cascade);
});
```

Remove those Part of code 👍

```
table.ForeignKey(
  name: "FK_Tickets_Bookings_BookingId1",
  column: x => x.BookingId1,
  principalTable: "Bookings",
  principalColumn: "BookingId",
  onDelete: ReferentialAction.Cascade);

table.ForeignKey(
  name: "FK_Tickets_Flights_FlightId1",
  column: x => x.FlightId1,
  principalTable: "Flights",
  principalColumn: "FlightId",
  onDelete: ReferentialAction.Cascade);
```

Error 4:

DateTime' does not contain a definition for 'ToDateTime' and no accessible extension method 'ToDateTime' accepting a first argument of type 'DateTime' could be found (are you missing a using directive or an assembly reference?

In part of code 😡
b.BookingDate.ToDateTime(new TimeOnly(0, 0))

Solve:

`BookingDate` is a `DateTime`

Just remove `.ToDateTime()` and use it directly:

```
var candidate = flights
```

```
    .OrderBy(f => Math.Abs((f.DepartureUtc -
b.BookingDate).TotalDays))
    .First();
```

Error 5:

The name 'DbSeeder' does not exist in the current context" shown in this code

In this part of code in SeedData class:

```
internal class Program
 { static async Task Main()
        { using var db = new FlightDatabaseContext(); // Make sure schema is up to date
        await db.Database.MigrateAsync();
         // Seed await
        DbSeeder.SeedAsync(db);
```

Solve 👍

1. put DbSeeder in the same namespace as Program
2. fully qualify it:

```
FlightManagementCompany_LINQ_EFCore.Seeding.DbSeeder.SeedAsync(db);
```

Error 6:

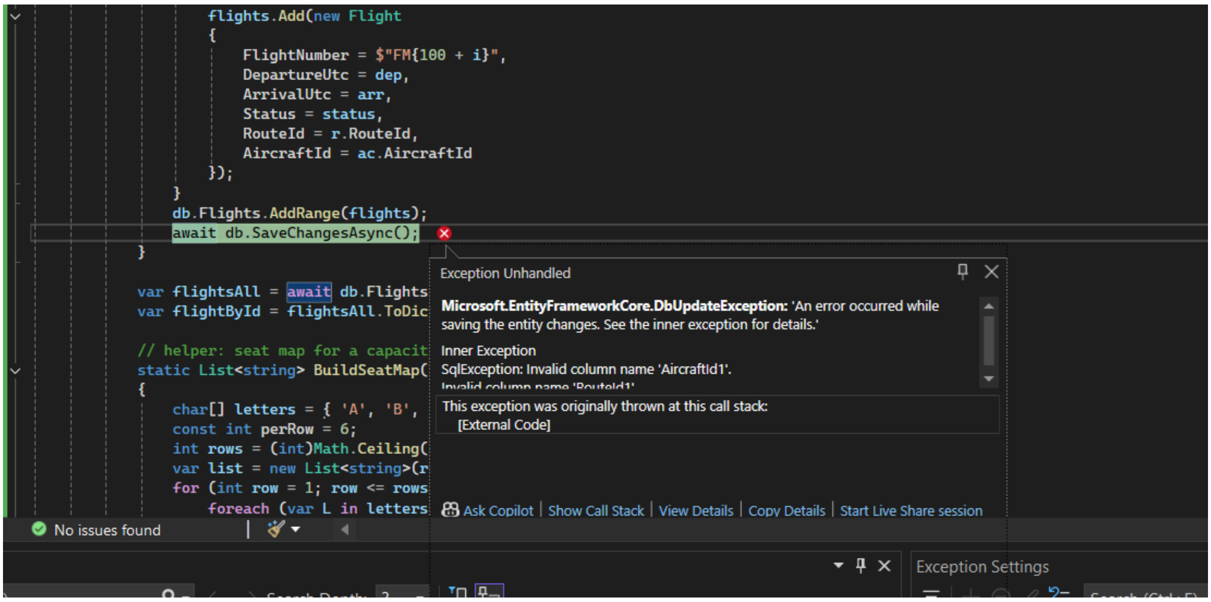
'AircraftMaintenance' does not contain a definition for 'Description' and no accessible extension method 'Description' accepting a first argument of type 'AircraftMaintenance' could be found (are you missing a using directive or an assembly reference?)

Case :
Use the name of model without create using for the namespace of that model

Solve 👍

```
using FlightManagementCompany_LINQ_EFCore.Models; // Ensure this
namespace matches your AircraftMaintenance model's namespace
```

Error7:



```
            flights.Add(new Flight
            {
                FlightNumber = $"FM{100 + i}",
                DepartureUtc = dep,
                ArrivalUtc = arr,
                Status = status,
                RouteId = r.RouteId,
                AircraftId = ac.AircraftId
            });
        }
        db.Flights.AddRange(flights);
        await db.SaveChangesAsync();
    }

    var flightsAll = await db.Flights
    var flightById = flightsAll.ToDic

    // helper: seat map for a capacit
    static List<string> BuildSeatMap(
    {
        char[] letters = { 'A', 'B',
        const int perRow = 6;
        int rows = (int)Math.Ceiling(
        var list = new List<string>(r
        for (int row = 1; row <= rows
            foreach (var L in letters
```

Exception Unhandled

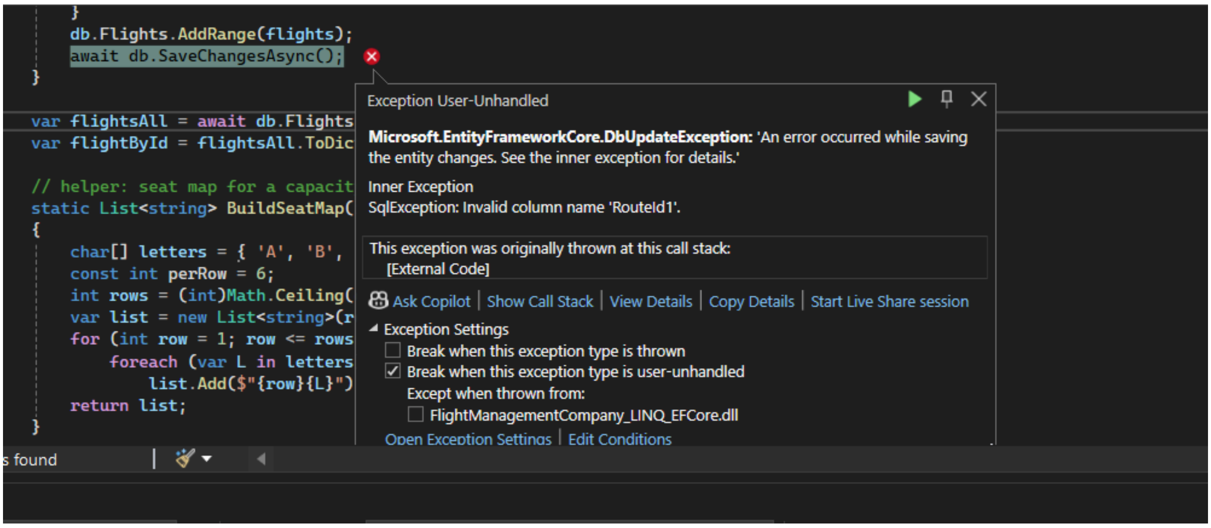
Microsoft.EntityFrameworkCore.DbUpdateException: 'An error occurred while saving the entity changes. See the inner exception for details.'

Inner Exception
SqlException: Invalid column name 'AircraftId1'.
Invalid column name 'RouteId1'

This exception was originally thrown at this call stack:
    [External Code]

Ask Copilot | Show Call Stack | View Details | Copy Details | Start Live Share session
No issues found
Exception Settings

Error 8:



```
    }
    db.Flights.AddRange(flights);
    await db.SaveChangesAsync();
}

var flightsAll = await db.Flights
var flightById = flightsAll.ToDic

// helper: seat map for a capacit
static List<string> BuildSeatMap(
{
    char[] letters = { 'A', 'B',
    const int perRow = 6;
    int rows = (int)Math.Ceiling(
    var list = new List<string>(r
    for (int row = 1; row <= rows
        foreach (var L in letters
            list.Add($"{row}{L}")
    return list;
}
```

Exception User-Unhandled

Microsoft.EntityFrameworkCore.DbUpdateException: 'An error occurred while saving the entity changes. See the inner exception for details.'

Inner Exception
SqlException: Invalid column name 'RouteId1'.

This exception was originally thrown at this call stack:
    [External Code]

Exception Settings
□ Break when this exception type is thrown
☑ Break when this exception type is user-unhandled
Except when thrown from:
□ FlightManagementCompany_LINQ_EFCore.dll

Ask Copilot | Show Call Stack | View Details | Copy Details | Start Live Share session
Open Exception Settings | Edit Conditions
s found

Error 9:

Introducing FOREIGN KEY constraint 'FK_Tickets_Bookings_BookingId1' on table 'Tickets' may cause cycles or multiple cascade paths. Specify ON DELETE NO ACTION or ON UPDATE NO ACTION, or modify other FOREIGN KEY constraints.
Could not create constraint or index. See previous errors.

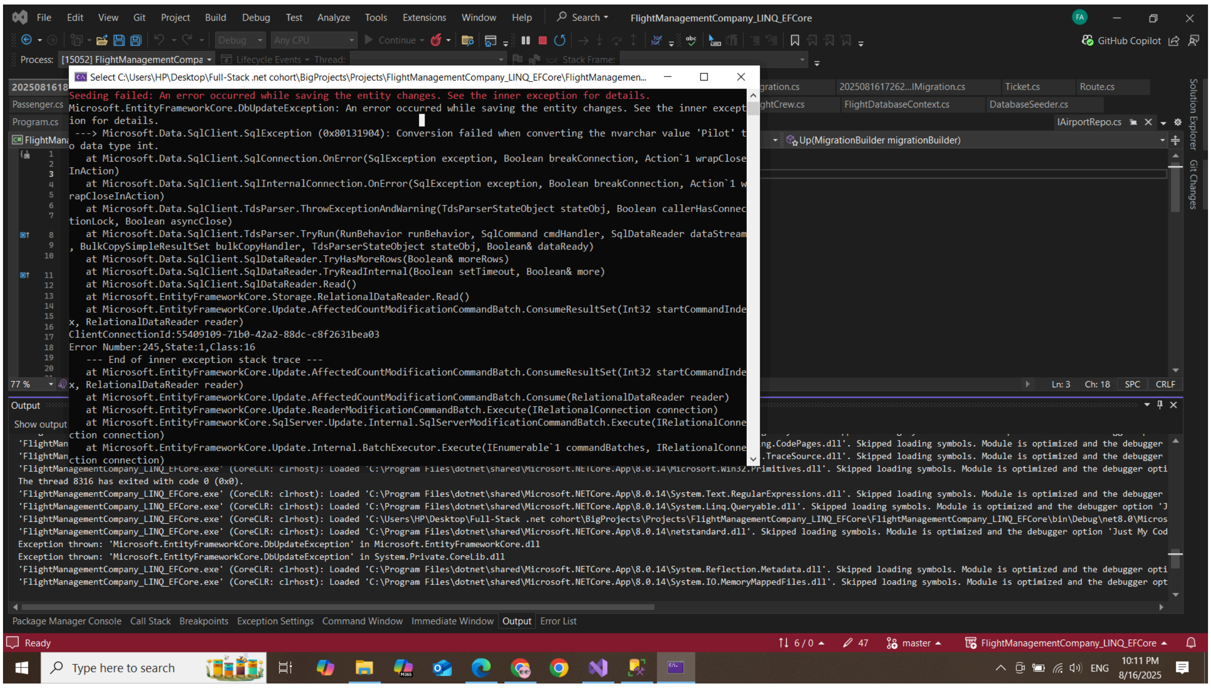
Error 10:

Introducing FOREIGN KEY constraint 'FK_Baggages_Tickets_TicketId1' on table 'Baggages' may cause cycles or multiple cascade paths. Specify ON DELETE NO ACTION or ON UPDATE NO ACTION, or modify other FOREIGN KEY constraints.
Could not create constraint or index. See previous errors.

Same solve process for Error 7,9 and 10:

```
 b.HasOne<Ticket>()
   .WithMany()
   .HasForeignKey(x => x.TicketId)
   .OnDelete(DeleteBehavior.Cascade) // change to Restrict
   .HasConstraintName("FK_Baggages_Tickets_TicketId");
```

Error 11:



```
Seeding failed: An error occurred while saving the entity changes. See the inner exception for details.
Microsoft.EntityFrameworkCore.DbUpdateException: An error occurred while saving the entity changes. See the inner except
ion for details.
 ---> Microsoft.Data.SqlClient.SqlException (0x80131904): Conversion failed when converting the nvarchar value 'Pilot' t
o data type int.
   at Microsoft.Data.SqlClient.SqlConnection.OnError(SqlException exception, Boolean breakConnection, Action`1 wrapClose
InAction)
   at Microsoft.Data.SqlClient.SqlInternalConnection.OnError(SqlException exception, Boolean breakConnection, Action`1 w
rapCloseInAction)
   at Microsoft.Data.SqlClient.TdsParser.ThrowExceptionAndWarning(TdsParserStateObject stateObj, Boolean callerHasConnec
tionLock, Boolean asyncClose)
   at Microsoft.Data.SqlClient.TdsParser.TryRun(RunBehavior runBehavior, SqlCommand cmdHandler, SqlDataReader dataStream
, BulkCopySimpleResultSet bulkCopyHandler, TdsParserStateObject stateObj, Boolean& dataReady)
   at Microsoft.Data.SqlClient.SqlDataReader.TryHasMoreRows(Boolean& moreRows)
   at Microsoft.Data.SqlClient.SqlDataReader.TryReadInternal(Boolean setTimeout, Boolean& more)
   at Microsoft.Data.SqlClient.SqlDataReader.Read()
   at Microsoft.EntityFrameworkCore.Storage.RelationalDataReader.Read()
   at Microsoft.EntityFrameworkCore.Update.AffectedCountModificationCommandBatch.ConsumeResultSet(Int32 startCommandInde
x, RelationalDataReader reader)
ClientConnectionId:55409109-71b0-42a2-88dc-c8f2631bea03
Error Number:245,State:1,Class:16
   --- End of inner exception stack trace ---
   at Microsoft.EntityFrameworkCore.Update.AffectedCountModificationCommandBatch.ConsumeResultSet(Int32 startCommandInde
x, RelationalDataReader reader)
   at Microsoft.EntityFrameworkCore.Update.AffectedCountModificationCommandBatch.Consume(RelationalDataReader reader)
   at Microsoft.EntityFrameworkCore.Update.ReaderModificationCommandBatch.Execute(IRelationalConnection connection)
   at Microsoft.EntityFrameworkCore.SqlServer.Update.Internal.SqlServerModificationCommandBatch.Execute(IRelationalConne
ction connection)
   at Microsoft.EntityFrameworkCore.Update.Internal.BatchExecutor.Execute(IEnumerable`1 commandBatches, IRelationalConne
ction connection)
```

```
The thread 8316 has exited with code 0 (0x0).
'FlightManagementCompany_LINQ_EFCore.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\8.0.14\System.Text.RegularExpressions.dll'. Skipped loading symbols. Module is optimized and the debugger
'FlightManagementCompany_LINQ_EFCore.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\8.0.14\System.Linq.Queryable.dll'. Skipped loading symbols. Module is optimized and the debugger option 'J
'FlightManagementCompany_LINQ_EFCore.exe' (CoreCLR: clrhost): Loaded 'C:\Users\HP\Desktop\Full-Stack .net cohort\BigProjects\Projects\FlightManagementCompany_LINQ_EFCore\FlightManagementCompany_LINQ_EFCore\bin\Debug\net8.0\Micros
'FlightManagementCompany_LINQ_EFCore.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\8.0.14\netstandard.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just My Cod
Exception thrown: 'Microsoft.EntityFrameworkCore.DbUpdateException' in Microsoft.EntityFrameworkCore.dll
Exception thrown: 'Microsoft.EntityFrameworkCore.DbUpdateException' in System.Private.CoreLib.dll
'FlightManagementCompany_LINQ_EFCore.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\8.0.14\System.Reflection.Metadata.dll'. Skipped loading symbols. Module is optimized and the debugger opti
'FlightManagementCompany_LINQ_EFCore.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\8.0.14\System.IO.MemoryMappedFiles.dll'. Skipped loading symbols. Module is optimized and the debugger opt
```

Solve:
That stack trace is 100% because your DB column **CrewMembers.Role** is still **INT**, while your model now stores **strings** ("Pilot", …). Fix by making the DB column nvarchar(20).

-- 1) Drop old check constraint if present

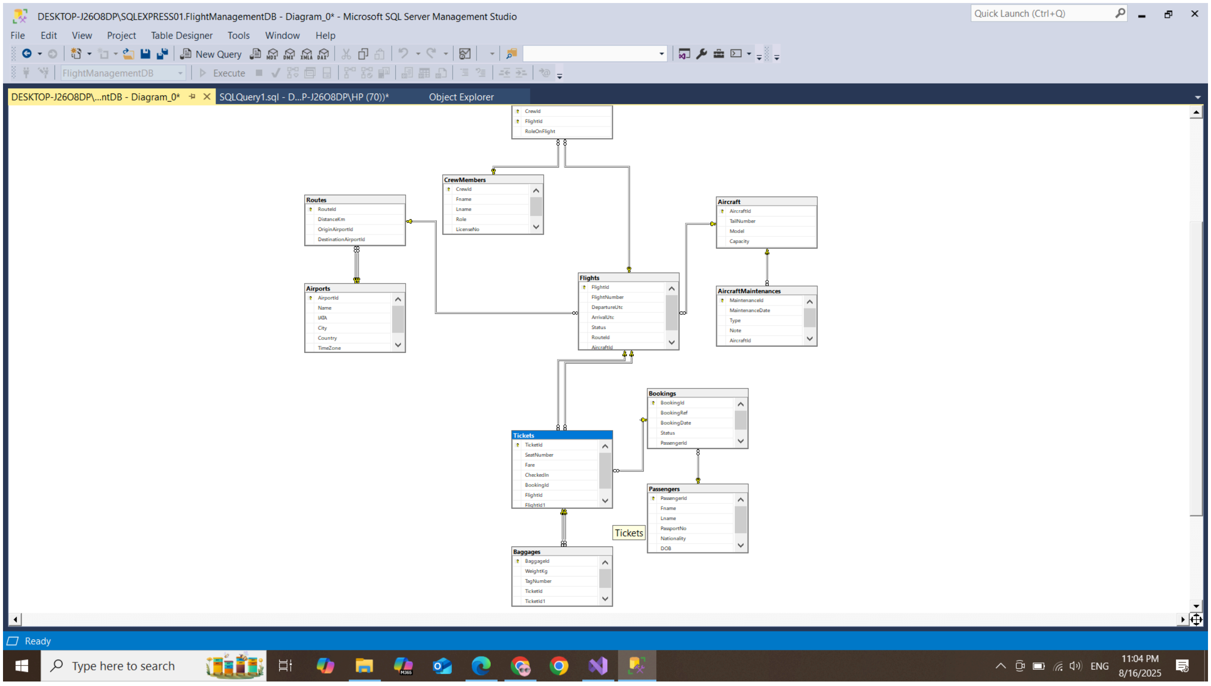
```
IF EXISTS (SELECT 1 FROM sys.check_constraints WHERE
name='CK_CrewMember_Role' AND
parent_object_id=OBJECT_ID('dbo.CrewMembers'))
    ALTER TABLE dbo.CrewMembers DROP CONSTRAINT CK_CrewMember_Role;

-- 2) Change column INT -> NVARCHAR(20)
ALTER TABLE dbo.CrewMembers
ALTER COLUMN [Role] NVARCHAR(20) NOT NULL;

-- 3) If rows exist and still have numbers, map them to strings
UPDATE dbo.CrewMembers
SET [Role] = CASE [Role]
                WHEN '0' THEN 'Pilot'
                WHEN '1' THEN 'CoPilot'
                WHEN '2' THEN 'FlightAttendant'
                ELSE [Role]
             END;

-- 4) Re-add string-based check constraint
ALTER TABLE dbo.CrewMembers
ADD CONSTRAINT CK_CrewMember_Role
CHECK ([Role] IN ('Pilot','CoPilot','FlightAttendant'));
```

Logic error in the data base:



Solve 👍

Error 12:
Seeding failed: Invalid column name 'TicketId1'.
Solve:

```
modelBuilder.Entity<Baggage>(b =>
{
    b.HasKey(x => x.BaggageId);
    b.Property(x => x.TicketId).IsRequired();

    b.HasOne(x => x.Ticket)
     .WithMany(t => t.Baggages)        // <-- bind to collection
     .HasForeignKey(x => x.TicketId)
     .OnDelete(DeleteBehavior.Cascade)
     .HasConstraintName("FK_Baggages_Tickets_TicketId");
```

Change to 👍
While **do NOT have Ticket.Baggages**

Then keep .WithMany() and make sure there is **no** Baggages collection on Ticket and **no** data annotations ([InverseProperty], duplicate navs, etc.) that would create a second relationship:

```
modelBuilder.Entity<Baggage>(b =>
{
    b.HasKey(x => x.BaggageId);
    b.Property(x => x.TicketId).IsRequired();

    b.HasOne(x => x.Ticket)
     .WithMany()                       // <-- no collection at all
     .HasForeignKey(x => x.TicketId)
     .OnDelete(DeleteBehavior.Cascade)
     .HasConstraintName("FK_Baggages_Tickets_TicketId");
});
```