

```

1 using DatabaseConnect.Entities;
2 using Microsoft.EntityFrameworkCore;
3
4 namespace DatabaseConnect
5 {
6     public class Context : DbContext
7     {
8         public Context(DbContextOptions DbCfg) : base(DbCfg)
9         {
10         }
11         // Simple
12         public DbSet<Book> Books { get; set; }
13         public DbSet<Author> Authors { get; set; }
14         public DbSet<Cover> Covers { get; set; }
15         public DbSet<User> Users { get; set; }
16         public DbSet<UType> UTypes { get; set; }
17         public DbSet<Checkout> Checkouts { get; set; }
18         public DbSet<Reservation> Reservations { get; set; }
19         // Relationships
20         public DbSet<AuthorBook> AuthorBook_rel { get; set; }
21         public DbSet<UserUType> UserUType_rel { get; set; }
22
23
24         protected override void OnModelCreating(ModelBuilder modelBuilder)
25         {
26             modelBuilder.Entity<AuthorBook>() // Composite Key for AuthorBooks
27                 .HasKey(ab => new { ab.BookID, ab.AuthorID });
28
29             modelBuilder.Entity<AuthorBook>() // One to many AuthorBooks.Book to ↗
30                 .HasOne(ab => ab.Book)
31                 .WithMany(b => b.AuthorBooks)
32                 .HasForeignKey(ab => ab.BookID);
33
34             modelBuilder.Entity<AuthorBook>() // One to many AuthorBooks.Author ↗
35                 .HasOne(ab => ab.Author)
36                 .WithMany(a => a.AuthorBooks)
37                 .HasForeignKey(ab => ab.AuthorID);
38
39             modelBuilder.Entity<UserUType>() // Composite Key
40                 .HasKey(ut => new { ut.UserID, ut.UTypeID });
41
42             modelBuilder.Entity<Book>()
43                 .Property(a => a.DeweyDecimal)
44                 .HasDefaultValue("n/a");
45
46             modelBuilder.Entity<Book>()
47                 .Property(a => a.FicID)
48                 .HasDefaultValue("n/a");
49
50             modelBuilder.Entity<Book>()

```

```
51         .Property(a => a.DeweyDecimal)
52         .HasDefaultValue("n/a");
53
54     modelBuilder.Entity<AuthorBook>()
55         .Property(ab => ab.AuthorID)
56         .HasDefaultValue(3);
57
58     }
59 }
60 }
61
```