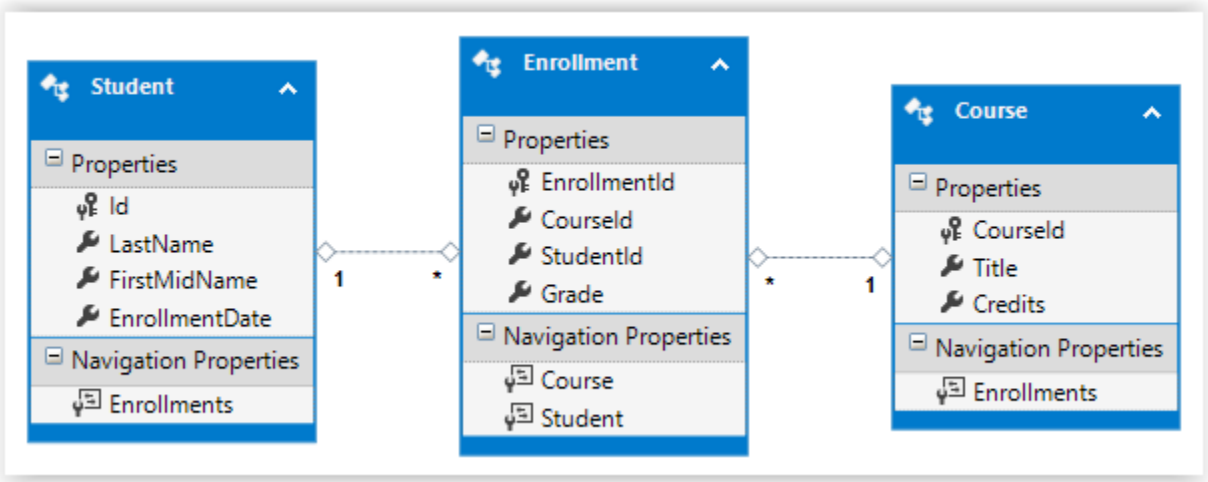
EF Core: creating a data model and database

1. Write domain classes and a context class so EF can generate a database that matches the schema below. The name of the database must be 'SchoolDb'.



The *Grade* property of an *Enrollment* should be an enum with values A, B, C, D, E and F.

Write methods in your datalayer project to add and to retrieve data:

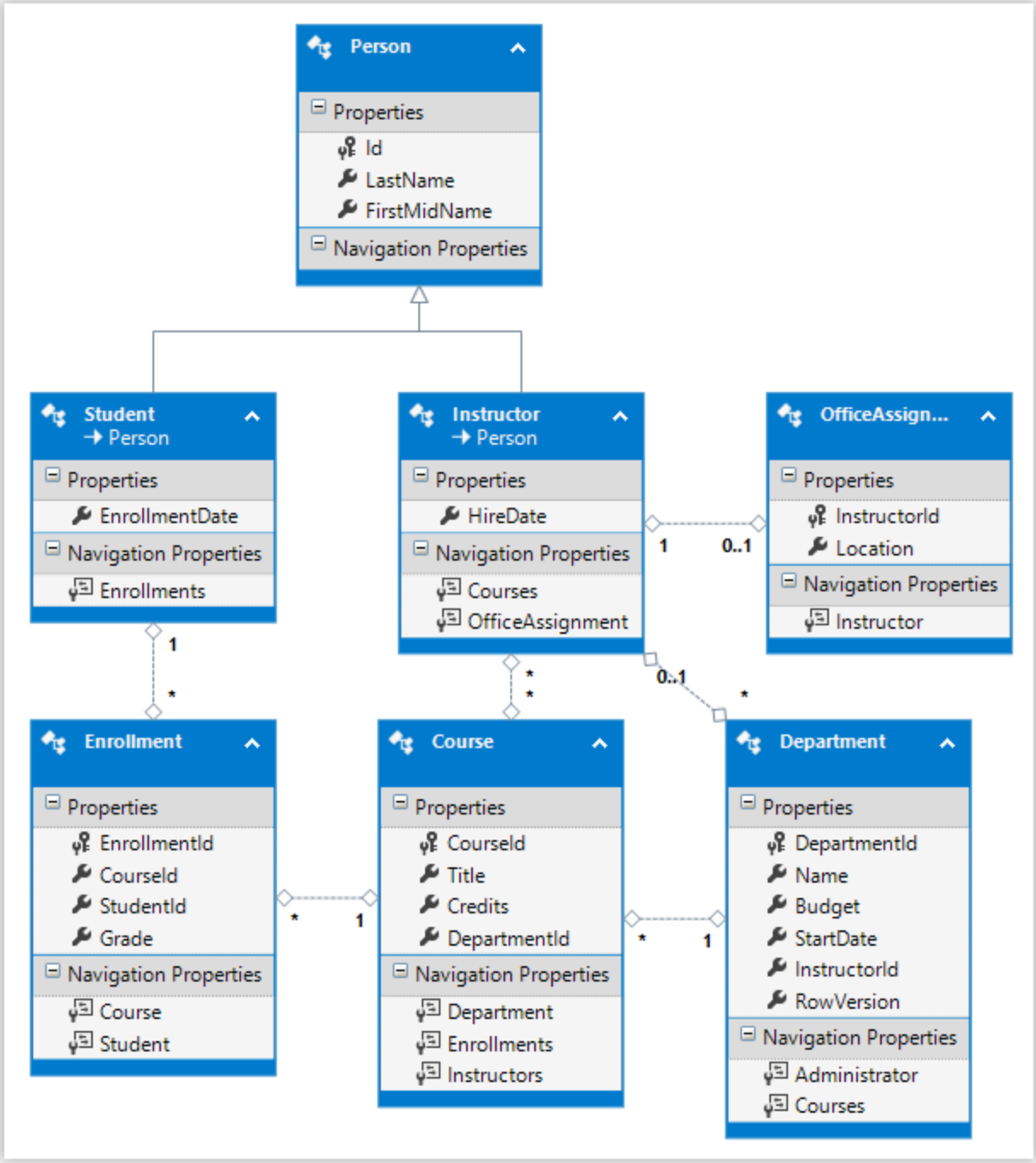
- Add / modify / remove a student / course / enrollment to the database
- Retrieve all students and at the same time, retrieve the courses for which the students are enrolled

Optional: write a user interface that uses your datalayer.

Optional: try to avoid code duplication in your datalayer by creating a generic repository base class.

2. Write domain classes and a context class so EF can generate a database that matches the scheme below. The name of the database must be 'ComplexSchoolDb'.
   You will need to deviate a little bit from the scheme below to be able to incorporate the many-to-many relation.
   Make sure that *CourseId* will map to a primary key column but **not** an identity column (so that the database will not automatically generate a *CourseId* when adding a course.
   Implement **Inheritance** for the *Student* and *Instructor* classes (**Person**).
   The *Grade* property of an *Enrollment* should be an enum with values A, B, C, D, E and F.
   Do not use Data Annotations, only Fluent API.
   LastName and FirstMidName should map to NOT NULL columns.

   Optional: write a user interface that uses your datalayer.


Person
Properties
Id
LastName
FirstMidName
Navigation Properties
Student
Person
Properties
EnrollmentDate
Navigation Properties
Enrollments
Instructor
Person
Properties
HireDate
Navigation Properties
Courses
OfficeAssignment
OfficeAssign...
Properties
InstructorId
Location
Navigation Properties
Instructor
1
0..1
1
*
*
*
0..1
*
Enrollment
Properties
EnrollmentId
CourseId
StudentId
Grade
Navigation Properties
Course
Student
Course
Properties
CourseId
Title
Credits
DepartmentId
Navigation Properties
Department
Enrollments
Instructors
Department
Properties
DepartmentId
Name
Budget
StartDate
InstructorId
RowVersion
Navigation Properties
Administrator
Courses
*
1
*
1