Getting Started with Entity Framework 6 Code First using MVC 5

Chapter 01: Creating an Entity Framework Data Model

10 June 2019

Q1. Which property of an entity class is treated as primary key?
    A. a property that's named ID
    B. a property that's named classnameID
    C. a property that's name starts with classname
    D. a property that's name ends with classname
Answer: A, B
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Q2. What are navigation properties in an entity data model class?
    A. Navigation properties allow navigating to child entities from the current entity.
    B. Navigation properties hold other entities that are related to the current entity.
    C. Navigation properties map entities to database tables.
    D. Navigation properties hold schema definitions of entities.
Answer: B
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Q3. To enable lazy what you do?
    A. Navigation properties are typically defined as virtual
    B. Navigation properties are typically defined as non-virtual
    C. Navigation properties are typically defined as abstract
    D. Navigation properties are typically defined as static
Answer: A
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Q4. You create database context class deriving from the _____ class.
    A. System.Data.Entity.DbContext
    B. System.Data.Entity
    C. System.Data
    D. Systam.Data.DataSet
Answer: A
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Q5. In Entity Framework terminology, an entity set typically corresponds to a _____.
    A. database table
    B. row in a table
    C. column in a table
    D. database
Answer: A
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Q6. In Entity Framework terminology, an entity typically corresponds to a _____.
    A. database table
    B. row in a table
    C. column in a table
    D. database
Answer: B
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Q7. _____ is data that the model binder found in a URL segment specified in the routing table.
    A. Route data
    B. View data
    C. Action parameter
    D. Action filter
Answer: A
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Q8. In Entity Framework 6, which class corresponds to a database table?
    A. DbSet
    B. EntitySet
    C. EntityContainer
    D. None
Answer: B
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Q9. Which attribute should you use so that you can enter the primary key for the course rather than having the database generate it?
    A. DatabaseGenerated
    B. Auto
    C. Identity
    D. Computed
Answer: A
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Q10. What method of the DbContext class should you use to prevent table names from being pluralized?
    A. OnModelCreating
    B. Seed
    C. Initialize
    D. Migration
Answer: A
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Q11. Which method of Data Initializer class is used to populate test data?
    A. Seed
    B. Init
    C. Up
    D. Configure
Answer: A
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Q12. What should you do to prevent cross-site request forgery attacks?
   A. In the view use Html.AntiForgeryToken() statement and add the ValidateAntiForgeryToken attribute on the action method
   B. In the view use Html.AntiForgeryToken() statement and add the ValidateInput attribute on the action method
   C. Use Bind attribute on action method parameter
   D. Use UseCors attribute on the action method
Answer: A

Q13. Which attribute helps prevent cross-site request forgery attacks?
   A. Bind
   B. ValidateAntiForgeryToken
   C. ValidateInput
   D. HttpPost
Answer: A

Q14. Which attribute protects against over-posting?
   A. Bind
   B. ValidateAntiForgeryToken
   C. ValidateInput
   D. HttpPost
Answer: A

Q15. How can you whitelist fields?
   A. Using the ValidateInput attribute
   B. Using the ValidateAntiForgeryToken attribute
   C. Using the Include parameter with the Bind attribute
   D. Using the Exclude parameter with the Bind attribute
Answer: C

Q16. To execute a LINQ query, which method should you call?
   A. ToList()
   B. Execute()
   C. Load()
   D. Create()
Answer: A

Q17. Which nuget package do you use for paging helpers and displaying the paging buttons?
   A. PgaedList.Mvc
   B. Bootstrap
   C. jQuery UI
   D. angularJS
Answer: A

Q17. What does the statement (page ?? 1)do?
   A. returns 1 if the value of page is true or returns null
   B. returns the value of page if it has a value, or returns 1 if page is null
   C. returns 1 the page has a value, or returns null
   D. it is not a valid statement

Answer: B

Q18. By default, html helper BeginForm submits form data using HTTP _____ method.
    A. GET
    B. POST
    C. PUT
    D. DELETE
Answer: B

Q19. To enable connection resiliency is create a class in your assembly that derives from the _____ class.
    A. DbContext
    B. DbSet
    C. DbConfiguration
    D. ObjectContext
Answer: C

Q20. Which feature enables you update the database schema instead of dropping and re-creating the database?
    A. Object Services
    B. ORM Tool
    C. Code First Migrations
    D. Database Initializer
Answer: C

Q21. The update-database command runs the _____ method of InitialCreate class to create the database.
    A. Seed
    B. Create
    C. Up
    D. Down
Answer: A

Q22. Which command generates the code that would create the database from scratch?
    A. Enable-migrations
    B. Add-migration
    C. Update-database
    D. Seed
Answer: B

Q23. Which command creates a Configuration.cs file that you can edit to configure Migrations?
    A. Enable-migrations
    B. Add-migration
    C. Update-database
    D. Seed
Answer: B

Q24. How EF resolves primary key by default?
    A. A property named ID

B. A property that's named classnameID as the primary key
C. A property that's named ID or classnameID as the primary key
D. No default rule, you must annotate a property with Key attribute

Answer: C

Q26. Which one hold other entities that are related to this entity?
    A. Foreign Key property
    B. Navigation property
    C. Primary key
    D. A virtual property of type ICollection<T>

Answer: B

Q26. How can you take advantage of Entity Framework functionality feature lazy loading?
    A. Declare navigation property with virtual keyword
    B. Declare navigation property without virtual keyword
    C. Declare navigation property with type IList<T>
    D. Declare navigation property with type ICollection<T>

Answer: A

Q27. Which one is the main class that coordinates Entity Framework functionality for a given data model?
    A. DbSet<T>
    B. DbContext
    C. EntitySet<T>
    D. EntityContext

Answer: A

Q28. In Entity Framework terminology, an entity set typically corresponds to _____.
    A. a database
    B. a database table
    C. a row in a table
    D. a column in a table

Answer: B

Q29. In Entity Framework terminology, an entity typically corresponds to _____.
    A. a database
    B. a database table
    C. a row in a table
    D. a column in a table

Answer: C

Q30. Which one correctly specifies the connection string in the DbContext class?
    A. public class MyContext: DbContext

```
{
        public SchoolContext() : base("MyContext")
        {
        }
}
```

    B. public class MyContext: DbContext

```
    {
            public SchoolContext()
            {
                    this.ConnectionString = "MyContext"
            }
    }
C. public class MyContext: DbContext
    {
            public SchoolContext("MyContext")
            {
            }
    }
D. None of the above
```
Answer: A

Q31. How Entity Framework finds the connection string for the DbConext class, If you don't specify a connection string or the name of one explicitly?
A. Entity Framework assumes that the connection string name is the same as the database context class name
B. Entity Framework assumes that the connection string name is the same as the name of assembly containing the DbContext class
C. Entity Framework assumes that the connection string name is System.Data.Enitity.DbContext
D. None of the above

Answer: A

Q32. You have your DbCotext class as below
public class MyDbContext:DbContext
{
}
Which code should you add to the class to specify that entity framework should use singular table names?

```
A. protected override void OnModelCreating(DbModelBuilder modelBuilder)
    {
            modelBuilder.Conventions.Remove<PluralizingTableNameConvention>();
    }
B. protected override void Seed(MyDbContext context)
    {
            context.Conventions.Remove<PluralizingTableNameConvention>();
    }
C. public MyDebContext()
    {
            this.Conventions.Remove<PluralizingTableNameConvention>();
    }
D. public MyDebContext()
    {
            this.PluralizingTableNameConvention=false;
    }
```
Answer: A

Q33. Which one is the default behavior of Entity Framework?
    A. create a database only if it doesn't exist and throw an exception if the model has changed and the database already exists
    B. create a database only if it doesn't exist and if model changes, drop and re-create database if it already exists
    C. drop and re-create database every time application runs
    D. there is no default behavior, you have set what to do by default
Answer: A

Q34.Why LocalDb is not recommended for production environment?
    A. LocalDb dependent on SQL server express version
    B. LocalDb is not designed to work with IIS
    C. LocalDb enables you to work with databases as .mdf files
    D. LocalDb puts .mdf files in the App_Data folder
Answer: A

Q34. _____is data that the model binder found in a URL segment specified in the routing table?
    A. Route data
    B. Model data
    C. Form data
    D. QueryString
Answer: B

Q35. Which one converts posted form values to CLR types and passes them to the action method in parameters?
    A. Route engine
    B. Model binder
    C. Entity framework
    D. Controller factory
Answer: B

Q36. If you add ValidateAntiForgeryToken attribute on an action method in a controller, which one you need to do to prevent cross-site request forgery attacks?
    A. ValidateInput attribute on the same action
    B. HttpPost attribute on the same action
    C. Html.AntiForgeryToken() statement in the view
    D. Bind attribute applied to the parameters of the action
Answer: C

Q37. Which attribute do you use to prevent over-posting?
    A. Bind
    B. ValidateAntiForgeryToken
    C. ValidateInput
    D. HttpPost
Answer: B

Q38. You use the _____with the Bind attribute to whitelist fields.
    A. Include parameter

B. Exclude parameter
C. Allow parameter
D. Accept parameter

Answer: A

Q39. You use the _____with the Bind attribute to blacklist fields.
    A. Include parameter
    B. Exclude parameter
    C. Deny parameter
    D. Reject parameter

Answer: B

Q40. Which state of an entity means that the entity is not being tracked by the database context?
    A. Deleted
    B. Removed
    C. Detached
    D. Modified

Answer: C

Q41. To enable paging using PagedList, which namespaces you require in your view page?
    A. PagedList
    B. PagedList.Mvc
    C. PagedList.DataPager
    D. System.Collections.Generics

Answer: B

Q42. Which Html helper method of PagedList library do you use to render pagination html?
    A. Html.ToPagedList
    B. Html.Pager
    C. Html.PagedListPager
    D. Html.DataPager

Answer: A

Q43. The default BeginForm submits form data with a _____.
    A. Get
    B. Post
    C. Put
    D. Patch

Answer: B

Q44. Which feature in Entity Framework 6 automates that process of retrying failed SQL queries?
    A. connection resiliency
    B. conventions
    C. migration
    D. transient connection

Answer: A

Q45. What should you do to enable connection resiliency in entity framework?

A. create a class in your assembly that derives from the DbContext class and in that class set the SQL Database execution strategy
B. create a class in your assembly that derives from the DbConfiguration class and in that class set the SQL Database execution strategy
C. create a class in your assembly that derives from the DbSet class and in that class set the SQL Database execution strategy
D. None of the above

Answer: B

Q46. How can you intercept each time Entity Framework sends a query to the database?
A. Create a class that derives from DbContext class and override the Seed method
B. Create a class that derives from DbConfiguration class and write method overrides that are automatically called when query is about to be executed
C. Create a class that derives from DbCommandInterceptor class and write method overrides that are automatically called when query is about to be executed
D. Create a class that derives from DbCommand class and override ExecuteXXX methods

Q47. How do you register your own interceptor to intercept any query that Entity Framework sends to database?
A. Using SetInitializer method of the Database class
B. Using Add method of the DbInterception class
C. Using Configure method of the Deconfiguration class
D. None

Answer: B

Q48. Which command Enables Code First Migrations in a project?
A. Enable-Migrations
B. Add-migration
C. Update-database
D. Migrations

Answer: A

Q49. Which command scaffolds a migration script for any pending model change?
A. Enable-Migrations
B. Add-migration
C. Update-database
D. Migrations

Answer: B

Q50. Which command applies any pending migrations to the database?
A. Enable-Migrations
B. Add-migration
C. Update-database
D. Migrations

Answer: C

Q51. Which command creates a <timestamp>_InitialSetup.cs based on current state of model?
A. Add-migration
B. Add-migration "InitialSetup"

C. Add-migration -InitialSetup
D. Enable-Migrations 'InitialSetup'
Answer: B

Q52. What does the enable-migrations command do?
A. Creates a Migrations folder in the project, and it puts in that folder a Configuration.cs file that you can edit to configure Migrations
B. Create a script for the next migration based on changes you have made to your model since the last migration was created
C. Apply any pending migrations to the database
D. None of the above
Answer: A

Q53. Which method of the DbSet<T> object performs an "upsert" operation?
A. Add
B. Attach
C. AddOrUpdate
D. SaveChanges
Answer: C

Q54. Which command should you to user insert an entity if does not exist or update if exits?
A. Add
B. Attach
C. AddOrUpdate
D. SaveChanges
Answer: C

Q55. Which method of the DbMigration class is called to implement the data model changes for a migration?
A. Up
B. Create
C. Add
D. Execute
Answer: A

Q56. Which method of the DbMigration class is called when you enter a command to roll back the update?
A. Up
B. Down
C. Rollback
D. Delete
Answer: B

Q57. Which data annotation should you use to generate a mailto: link?
A. RegExpression
B. DataType.EmailAddress
C. Column
D. Type
Answer: B

Q58. The DataType attributes do not provide any validation.
  A. True
  B. False
Answer: B

Q59. Which one is not true for DisplayFormat attribute?
  A. It is used to explicitly specify the format on the screen
  B. Its ApplyFormatInEditMode setting specifies that the specified formatting should also be applied when the value is displayed in a text box for editing
  C. It provides validation based on the DataType applied with it
  D. If it is used along with the DataType attribute, it can enable HTML5 features
Answer: C

Q60. Which one is not about the StringLength attribute?
  A. It sets the maximum length in the database
  B. It provides client side and server side validation for ASP.NET MVC
  C. You can set minimum string length in this attribute, which will not affect database schema
  D. It prevents a user from entering white space for a name
Answer: D

Q61. The MaxLength attribute provides similar functionality to the StringLength attribute but doesn't provide client side validation.
  A. True
  B. False
Answer: A

Q62. How can you prevent prevents a user from entering white space for a name?
  A. Set minimum string length in the StringLength attribute
  B. Use the RegularExpression attribute
  C. Use MaxLength attribute with min value set
  D. All of the above
Answer: B

Q63. How do you control how your classes and properties are mapped to the database?
  A. DataType with Name setting
  B. ColumnName
  C. Column
  D. Schema
Answer: C

Q64. Which specifies that the caption for the text boxes that will be displayed for editing?
  A. DataType
  B. Display
  C. DisplayFormat
  D. Label
Answer: B

Q65. Which one should not be used as type of a navigation property if the navigation can hold multiple entities?

A. ICollection <T>
B. IList <T>
C. IEnumerable <T>
D. None of the above

Answer: C

Q66. Which one should you use to disable primary key values to be generated by the database?
A. [DatabaseGenerated(DatabaseGeneratedOption.None)]
B. [Key(DatabaseGeneratedOption.None)]
C. [DatabaseGenerated(AutoIncrement=false)]
D. None

Answer: A

Q67. Which attribute is used to change SQL data type mapping?
A. DataType
B. Type
C. Column
D. DbType

Answer: C

Q68. Which one is Lazy Loading?
A. When the entity is first read, related data isn't retrieved. However, the first time you attempt to access a navigation property, the data required for that navigation property is automatically retrieved
B. When the entity is read, related data is retrieved along with it.
C. When the entity is first read, related data isn't retrieved. You explicitly retrieve the data required for that navigation property in code
D. None

Answer: A

Q69. Which one is eager Loading?
A. When the entity is first read, related data isn't retrieved. However, the first time you attempt to access a navigation property, the data required for that navigation property is automatically retrieved
B. When the entity is read, related data is retrieved along with it.
C. When the entity is first read, related data isn't retrieved. You explicitly retrieve the data required for that navigation property in code
D. None

Answer: B

Q70. Which one is explicit Loading?
A. When the entity is first read, related data isn't retrieved. However, the first time you attempt to access a navigation property, the data required for that navigation property is automatically retrieved
B. When the entity is read, related data is retrieved along with it.
C. When the entity is first read, related data isn't retrieved. You explicitly retrieve the data required for that navigation property in code
D. None

Answer: C

Q71. Which code is using lazy loading?
    A. var dep = context.Departmets.First(d=> d.Id =3);
        int noOfEmployees = dep.Employees.Count;
    B. var dep = context.Departmets.Include(x=> x.Employees).First(d=> d.Id =3);
        int noOfEmployees = dep.Employees.Count;
    C. var dep = context.Departmets.First(d=> d.Id =3);
        context.Entry(dep).Collection(x=> x.Employees).Load();
        int noOfEmployees = dep.Employees.Count;
    D. None
Answer: B

Q72. Which code is using eager loading?
    A. var dep = context.Departmets.First(d=> d.Id =3);
        int noOfEmployees = dep.Employees.Count;
    B. var dep = context.Departmets.Include(x=> x.Employees).First(d=> d.Id =3);
        int noOfEmployees = dep.Employees.Count;
    C. var dep = context.Departmets.First(d=> d.Id =3);
        context.Entry(dep).Collection(x=> x.Employees).Load();
        int noOfEmployees = dep.Employees.Count;
    D. None
Answer: A

Q73. Which code is using explicit loading?
    A. var dep = context.Departmets.First(d=> d.Id =3);
        int noOfEmployees = dep.Employees.Count;
    B. var dep = context.Departmets.Include(x=> x.Employees).First(d=> d.Id =3);
        int noOfEmployees = dep.Employees.Count;
    C. var dep = context.Departmets.First(d=> d.Id =3);
        context.Entry(dep).Collection(x=> x.Employees).Load();
        int noOfEmployees = dep.Employees.Count;
    D. None
Answer: C

Q74. Which method of the object state manager entry would you use to retrieve navigation property that holds single entry?
    A. Collection.Load
    B. Reference.Load
    C. Collection.Include
    D. Reference.Include
Answer: B

Q75. Which method of the object state manager entry would you use to retrieve navigation property that holds multiple entries?
    A. Collection.Load
    B. Reference.Load
    C. Collection.Include
    D. Reference.Include
Answer: A

Q76. Which one is not a way of disabling lazy loading?
  A. Disable proxy creation
  B. Omit the virtual keyword when you declare a navigation property
  C. Set LazyLoadingEnabled to false in the constructor of your context
  D. Avoid using DTO instead of using entity objects
Answer: D