

Table 1-4. Some of the Methods Exposed by DbSet<T>

DbSet<T> Method	Definition
Add/AddRange	Begins tracking the entity/entities in the Added state. Item(s) will be added when SaveChanges is called. Async versions are available as well.
Find	Searches for the entity in the ChangeTracker by primary key. If not found, the data store is queried for the object. An async version is available as well.
Update/Update	Begins tracking the entity/entities in the Modified state. Item(s) will be updated when SaveChanges is called. Async versions are available as well.
Remove/Remove	Begins tracking the entity/entities in the Deleted state. Item(s) will be removed when SaveChanges is called. Async versions are available as well.
Attach/AttachRange	Begins tracking the entity/entities in the Unchanged state. No operation will execute when SaveChanges is called. Async versions are available as well.

- 1) Create the domain model classes
- 2) Create the EFCore Context class
- 3) Configure model classes either via annotations or by FluentApi library or a combination of both. We'll use FluentApi alone.
- 4) Add the model to the context as a DbSet<T> where T is one of our model classes we want included in the context.
- 5) Create a migration and update the database following the context class and its configuration

The MSDN Library defines the DbContext instance as a combination of the Unit of Work and Repository patterns. It provides access to the model collections in your data model (populating the collections from the data store when needed), exposes CRUD functionality on your collections (in addition to the functions exposed through the DbSet<T> specialized collection classes), and groups changes into a single call as a unit of work.

Properties of DbContext

DbContext Property	Definition
Database	Provides access database related information and functionality, including execution of SQL statements.
Model	The metadata about the shape of entities, the relationships between them, and how they map to the database.
ChangeTracker	Provides access to information and operations for entity instances this context is tracking.

Methods:

DbContext Method	Definition
AddAdd<TEntity>	Begins tracking the entity. Will be inserted in the data store when SaveChanges is called. If type isn't specified, the DbContext will determine which DbSet the entity should be added into. Async versions are also available. Note: The DbSet<T> versions are typically used.
AddRange	Adds a list of entities to the change tracker instead of just one at a time. Entities do not have to all be of the same type. An async version is also available. Note: The DbSet<T> version is typically used.
Find<TEntity>	Searches the change tracker for an entity of the given by primary key. If it is not found, the data store is queried for the entity. An async version is also available. Note: The DbSet<T> version is typically used.
RemoveRemove<TEntity>	Prepares an entity for deletion from the data store. Will be deleted from the data store when SaveChanges is called. If type isn't specified, the DbContext will determine which DbSet the entity should be removed from. Async versions are also available. Note: The DbSet<T> versions are typically used.
RemoveRange	Prepares a list of entities to be deleted from the data store instead of just one at a time. Entities do not have to all be of the same type. An async version is also available. Note: The DbSet<T> version is typically used.
UpdateUpdate<TEntity>	Prepares an entry to be updated in the data store. Will be updated when SaveChanges is called. If the type isn't specified, the DbContext will determine which DbSet the entity belongs to. Async versions are also available. Note: The DbSet<T> versions are typically used.
SaveChangesSaveChangesAsync	Saves all entity changes to the database and returns the number of records affected.
Entry(T entity)	Provides access to change tracking information and operations (such as changing the EntityState) for the entity.
OnConfiguring	A builder used to create or modify options for this context. Executes each time a DbContext instance is created.
OnModelCreating	Called when a model has been initialized, but before it's finalized. Methods from the Fluent API are placed in this method to finalize the shape of the model.

