**Connecting to DB for Entity Framework (manual)**

1. Add Entity Framework to project
   1. Manage Nuget Packages...
   2. Browse EntityFramework (EF6)
   3. Install
2. Add DbContext
   1. In project create new folder called “Model”
   2. In Model create class called YourClassNameDBContext
      1. Inherit from DbContext
      2. Using System.Data.Entity;
3. Add connection to DB
   1. Make sure your DB is running (the program cannot connect if the DB is not currently running)
   2. Also copy the server name from opening SSMS
   3. In your project open App.config
   4. If file does not have a tag for <connectionStrings>… then add the tag
   5. In <connectionStrings> add connection to DB
      1. <add
      2. name=”YourClassNameDBContext”
      3. connectionString=
      4. ”
      5. data source= [copy of server name from opening SSMS];
      6. initial catalog=YourNewDBName;
      7. integrated security=true;
      8. “
      9. providerName=”System.Data.SqlClient”
      10. />
4. Enable DB Writes
   1. Tools > Nuget Package Manager > Package Manager Console
   2. Enter the line: Enable-Migrations
      1. If this line fails then one of the above steps is either incorrect or needs to be changed for your project

Adding Tables to DB

*For each Object you want in DB do the following…*

1. Add Models to DbContext
   1. Create new class in Model folder
   2. In the new class add properties applicable to the class
   3. Include a property ID (framework uses this to generate PrimaryKey)
      1. public int ID { get; set; }
   4. In YourClassNameDbContext add the following line
   5. Public DbSet<yourNewClass> YourNewClasses {get; set;}
2. Add model to migration
   1. Tools > Nuget Package Manager > Package Manager Console
   2. Enter the line: add-migration YourMigrationDescriptionName
3. Update DB
   1. In package manager console…
   2. Enter the line: update-database
   3. Tables added (DB itself is also added if this is the first table)
4. Rollback to previous Migration
   1. Update-Database -TargetMigration "NameOfPreviousMigration"

**Connecting to DB with EF Wizard**

1. Add EDM (Entity Data Model)
   1. Right-click project -> Add -> New Item
   2. Look for ADO.NET Entity Data Model and select it
   3. Name model SomeNameModel

*Convention is to end name with ‘Model’*

* 1. Select Add

1. Select code-first, DB-First, … (EDM Wizard)
   1. Select appropriate DB-First, Code-First, … option
   2. For this example select EF Designer from DB (DB-First)
   3. Select next
2. Add DB Connection
   1. Make sure your DB is running (the program cannot connect if the DB is not currently running)
   2. Also copy the server name from opening SSMS
   3. Select New Connection
   4. Select server from dropdown
      1. If server does not show, enter the server copied from opening SSMS
   5. Select DB you with to connect to from dropdown
   6. Select ok
   7. Select Tables/Views/etc. to add
      1. may need to click through a few pages to get here
   8. Select Finish
3. To update/change DB connection
   1. Open SomeNameModel.edmx file
   2. Right-click the background of the diagram
   3. Select Update Model from Database
   4. Add
      1. Add new tables
   5. Refresh
      1. Update your models based on changes to underlying tables
   6. Delete
      1. Remove models from program that are no longer in DB