**how to handle model changes after the database is already created**.

**At the moment the Employee class is as shown below**

**[**Table**(**"tblEmployees"**)]**

publicclassEmployee

**{**

publicintId **{** get**;** set**; }**

**[**Column**(**"First\_Name"**)]**

publicstringFirstName **{** get**;** set**; }**

publicstringLastName **{** get**;** set**; }**

publicstringGender **{** get**;** set**; }**

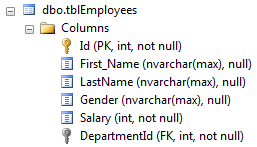
publicintSalary **{** get**;** set**; }**

publicintDepartmentId **{** get**;** set**; }**

**[**ForeignKey**(**"DepartmentId"**)]**

publicDepartmentDepartment **{** get**;** set**; }**

**}**

The following is the table Entity Framework has generated based on the above **Employee** class   
  
  
Now let us add **JobTitle** property to the **Employee** class. The modified **Employee** class is shown below.

**[**Table**(**"tblEmployees"**)]**

publicclassEmployee

**{**

publicintId **{** get**;** set**; }**

**[**Column**(**"First\_Name"**)]**

publicstringFirstName **{** get**;** set**; }**

publicstringLastName **{** get**;** set**; }**

publicstringGender **{** get**;** set**; }**

publicintSalary **{** get**;** set**; }**

publicintDepartmentId **{** get**;** set**; }**

**[**ForeignKey**(**"DepartmentId"**)]**

publicDepartmentDepartment **{** get**;** set**; }**

publicstringJobTitle **{** get**;** set**; }**

**}**

**At this point if we run the application, we get the following error.**  
The model backing the 'EmployeeDBContext' context has changed since the database was created. Consider using Code First Migrations to update the database (http://go.microsoft.com/fwlink/?LinkId=238269).  
  
This is because the model (**i.e Employee class**) has changed since the database was created. This means the Model and the database are no longer in sync and hence we get the error. To check if the model has changed since the database was created, entity framework uses **\_\_MigrationHistory** table that is auto-generated.  
  
To fix this error, we have to tell entity framework what to do when the model changes.  
  
Add **Global.asax** file to the web application project. Include the following code in **Application\_Start**() method. Here, we are telling the entity framework to drop and recreate database every time the model changes.

Database.SetInitializer**(**newDropCreateDatabaseIfModelChanges<EmployeeDBContext>**());**

Another option is, to drop and recreate the database always. To drop and recreate the database always we would change the code in Application\_Start() method as shown below.

Database.SetInitializer**(**newDropCreateDatabaseAlways<EmployeeDBContext>**());**

**Please Note:** **Database** class is present in **System.Data.Entity** namespace.  
  
Run the application, and notice that the database is dropped and recreated. But the webform does not display any data, as there is no data in Departments and tblEmployees tables. For now let's manually populate the tables using the followng SQL script.

Insert into Departments values ('IT', 'New York')

Insert into Departments values ('HR', 'London')

Insert into Departments values ('Payroll', 'Sydney')

Insert into tblEmployees values ('Mark', 'Hastings', 'Male', 60000, 1, 'Developer')

Insert into tblEmployees values ('Steve', 'Pound', 'Male', 45000, 3, 'Manager')

Insert into tblEmployees values ('Ben', 'Hoskins', 'Male', 70000, 1, 'Developer')

Insert into tblEmployees values ('Philip', 'Hastings', 'Male', 45000, 2, 'Recruiter')

Insert into tblEmployees values ('Mary', 'Lambeth', 'Female', 30000, 2, 'Recruiter')

Insert into tblEmployees values ('Valarie', 'Vikings', 'Female', 35000, 3, 'Manager')

Insert into tblEmployees values ('John', 'Stanmore', 'Male', 80000, 1, 'Developer')

Referesh the webform. Notice that **JobTitle** is not displayed on the WebForm. To fix this add a boundfield to the GridView control that displays Employees details as shown below.

<asp:GridViewID="GridView2"runat="server"AutoGenerateColumns="False"

DataSource='<%# **Eval("Employees")** %>'>

<Columns>

<asp:BoundFieldDataField="FirstName"HeaderText="First Name"/>

<asp:BoundFieldDataField="LastName"HeaderText="Last Name"/>

<asp:BoundFieldDataField="Gender"HeaderText="Gender"/>

<asp:BoundFieldDataField="Salary"HeaderText="Salary"/>

<asp:BoundFieldDataField="JobTitle"HeaderText="Job Title"/>

</Columns>

</asp:GridView>