ANNOTATIONS

Department.cs

using System;

using System.Collections.Generic;

using System.ComponentModel.DataAnnotations;

using System.ComponentModel.DataAnnotations.Schema;

namespace Codefirst1a

{

    //ANNOTATION ON TABLE CHANGE NAME

    [Table("Dept")]

    class Department

    {

        //donot want to autoincrement

        [DatabaseGenerated(DatabaseGeneratedOption.None)]

        public int DepartmentID { get; set; }//pk

        //not nullable

        [Required]

        [Column("DepartmentName",TypeName ="varchar")]

        [MaxLength(50)]

        public string DeptName { get; set; }

        public string Location { get; set; }

        public int noofproj { get; set; }

        //navigation prop

        public virtual ICollection<Employee> Employees { get; set; }

        public virtual ICollection<Project> Projects { get; set; }

    }

}

Employee.cs

using System;

using System.Collections.Generic;

using System.ComponentModel.DataAnnotations;

namespace Codefirst1a

{

    class Employee

    {

        [Key]

        public int EmpId { get; set; }

        public string EmpName { get; set; }

        public string Phone { get; set; }

        public int Age { get; set; }

        //navigation

        public virtual Department Department { get; set; }

        public virtual Details EmpDetails { get; set; }

    }

}

Details.cs

using System;

using System.Collections.Generic;

using System.ComponentModel.DataAnnotations;

using System.ComponentModel.DataAnnotations.Schema;

namespace Codefirst1a

{

    class Details

    {

        [Key,ForeignKey("Employee")]

        public int StudentId { get; set; }

        public string Address { get; set; }

        public string City { get; set; }

        public string State { get; set; }

        [NotMapped]

        public string District { get; set; }

        //navigational properties

        public virtual Employee Employee { get; set; }

    }

}

Employee.cs

using System;

using System.Collections.Generic;

using System.ComponentModel.DataAnnotations;

using System.ComponentModel.DataAnnotations.Schema;

namespace Codefirst1a

{

    class Employee

    {

        [Key]

        public int EmpId { get; set; }

        public string EmpName { get; set; }

        public string Phone { get; set; }

        public int Age { get; set; }

        [ForeignKey("Department")]

        public int DeptId { get; set; }

        //navigation

        public virtual Department Department { get; set; }

        public virtual Details EmpDetails { get; set; }

    }

}

Dbcontext

using System;

using System.Data.Entity;

namespace Codefirst1a

{

    class MyDbContext:DbContext

    {

        public MyDbContext():base("EmpDetails2")

        {

        }

        public virtual DbSet<Department> Departments { get; set; }

        public virtual DbSet<Employee> Employees { get; set; }

        public virtual DbSet<Project> Projects { get; set; }

        public virtual DbSet<Details> Details { get; set; }

    }

}

Program.cs

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Codefirst1a

{

    class Program

    {

        static void Main(string[] args)

        {

            MyDbContext db = new MyDbContext();

            try

            {

                Department dept = new Department();

                dept.DepartmentID = 11;

                dept.DeptName = "ROBOTICS";

                dept.noofproj = 12;

                dept.Location = "Bangalore";

                db.Departments.Add(dept);

                db.SaveChanges();

                Console.WriteLine("db created");

            }

            catch(Exception e)

            {

                Console.WriteLine(e.Message);

            }

        }

    }

}