**APEX COLLEGE**

**POKHARA UNIVERSITY**

**LAB REPORT OF**

**DOT NEW TECHNOLOGY**

**LAB-6**

**Submitted By:                                               Submitted To:**

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**Objectives: To set up required Services for the project ApexRestaurant** .

**Theory:** The built-in container is represented by IServiceProvider implementation that supports constructor injection by default. The types (classes) managed by built-in IoC container is called services.

There are basically two types of services in ASP.NET Core:

* **Framework Services:** Services which are a part of ASP.NET Core framework such as IApplicationBuilder, IHostingEnvironment, ILoggerFactory etc.
* **Application Services:** The services (custom types or classes) which you as a programmer create for your application

**Group Discussion:**

* Create an interface “IGenericService.cs”
* Create a class “GenericService.cs”\
* Add a class “ServiceModule.cs”
* Add similar interface , class for every new services.
* Next, add a folder “SCustomer” , “Sstaff”,”SStaffRole”,”SMenu”,”SMenuItem”,”SMeal”,”SMealDish”where S stands for services.
* Add an interface “ICustomerService.cs” inside the folder “Scustomer” and other every new interfaces inside necessary folder.
* Add a class “CustomerService.cs” and other every classes inside the folder “Scustomer”.
* And other required folder as per our need for a complete project.

And finally we have successfully built the project.

**Code:**

**Create an interface “IGenericService.cs”**

using System.Collections.Generic;

namespace ApexRestaurant.Services

{

     public interface IGenericService<T>

      {

         IList<T> GetAll();

        T GetById(int id);

        void Insert(T entity);

        void Update(T entity);

        void Delete(T entity);

     }

}

**Create a class “GenericService.cs”**

using System.Collections.Generic;

 using System.Linq;

 using ApexRestaurant.Repository;

namespace ApexRestaurant.Services

 {

      public abstract class GenericService<T> : IGenericService<T> where T : class, new()

      {

          protected GenericService(IGenericRepository<T> entityRepository)

          { EntityRepository = entityRepository; }

            protected IGenericRepository<T> EntityRepository{ get; }

            public void Insert(T entity) { EntityRepository.Insert(entity); }

            public void Update(T entity) { EntityRepository.Update(entity); }

            public IList<T> GetAll() { return EntityRepository.Query().ToList(); }

            public T GetById(int id) { return EntityRepository.Get(id); }

            public void Delete(T entity) { EntityRepository.Delete(entity); }

    }

}

**Add a class “ServiceModule.cs”**

using Microsoft.Extensions.DependencyInjection;

 using ApexRestaurant.Services.SCustomer;

 using ApexRestaurant.Services.SMeal;

 using ApexRestaurant.Services.SMeal\_Dish;

 using ApexRestaurant.Services.SMenu\_Item;

 using ApexRestaurant.Services.SMenu;

 using ApexRestaurant.Services.SRef\_Staff\_Role;

 using ApexRestaurant.Services.SStaff;

namespace ApexRestaurant.Services

{

    public static class ServicesModule

     {

          public static void Register(IServiceCollection services)

          {

               services.AddTransient<ICustomerService, CustomerService>();

               services.AddTransient<IMealService, MealService>();

               services.AddTransient<IMeal\_DishService, Meal\_DishService>();

               services.AddTransient<IMenu\_ItemService, Menu\_ItemService>();

               services.AddTransient<IMenuService, MenuService>();

               services.AddTransient<IRef\_Staff\_RoleService, Ref\_Staff\_RoleService>();

               services.AddTransient<IStaffService, StaffService>();

           }

     }

}

**Add an interface “ICustomerService.cs” inside the folder “SCustomer”.**

using ApexRestaurant.Repository.Domain;

namespace ApexRestaurant.Services.SCustomer

{

     public interface ICustomerService : IGenericService<Customer>

         {

         }

}

**Add a class “CustomerService.cs” inside the folder “SCustomer”.**

using ApexRestaurant.Repository.Domain;

 using ApexRestaurant.Repository.RCustomer;

namespace ApexRestaurant.Services.SCustomer

{

    public class CustomerService : GenericService<Customer>, ICustomerService

    {

        public CustomerService(ICustomerRepository customerRepository) : base(customerRepository)

        {

        }

    }

}

**Conclusion:** From this lab we have conclude that, the Service classes are designed to do two things:

1. Inherit from the Repository classes AND
2. Implement their own functionality, which is only necessary when said functionality deals with more than one business object.