UML Design Patterns
Assignment (28-01-2022)
By **MANOJ . KARNATAPU**

Project 1
Amazon Project Structure & It's UML Diagram.

Code

```csharp
using System;
namespace Amazon_UML_Designs
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("This is an Amazon Application");
            Console.ReadLine();
        }
    }

    //To Store All Customers Related Data and Functionality(methods)
    class Customer_Portal
    {
        private string name;
        private string emailAddress;
        private string password;
        private string subcriptionDetails;
        private string billingAddress, shippmentAddress;
        private int mobileNumber;

        public void CreateData()
        {
            // ToDo
        }

        public void UpdateData()
        {
            // Todo
        }
        public void DeleteData()
        {
            // ToDo
        }
        public void DisplayProfile()
        {
            // ToDo
        }
        public void SubcriptionDetails()
        {
            // ToDo
        }
    }

    // To Store All Employees Related Data and Functionality(methods)
    class Employees_Portal
    {
        private string Emp_Id;
        private string Emp_Name;
        private int Emp_salaryDetails;
```

```csharp
        private string Emp_benefits;
        private int Emp_BondDetails;


        public void UpdateData()
        {
            // Todo
        }
        public void DeleteData()
        {
            // ToDo
        }
        public void DisplayProfile()
        {
            // ToDo
        }
    }

    // To Store All Products Related Data and Functionality(methods)
    class Products_Portal
    {
        private string Product_Id;
        private string Product_Name;
        private string Product_Brand;
        private int Product_Price;
        private string Product_Description;
        private string Product_Category;
        private string Product_Ratings;

        public void UpdateProductData()
        {
            // Todo
        }
        public void DeleteProductData()
        {
            // ToDo
        }
        public void DisplayProductProfile()
        {
            // ToDo
        }
    }

    // To Store All Seller's Related Data and Functionality(methods)
    class Sellers_Portal
    {
        private string Sell_Id;
        private string Sell_Brand;
        private string Sell_Address;
        private string Sell_Ratings;
        private int Sell_Pending_Transc;
        private int Sell_Pending_Orders;

        public void UpdateSellersData()
        {
            // Todo
        }
        public void DeleteSellersData()
        {
            // ToDo
        }
        public void DisplaySellersProfile()
        {
            // ToDo
        }
        public void SellersProductCategories()
        {
```
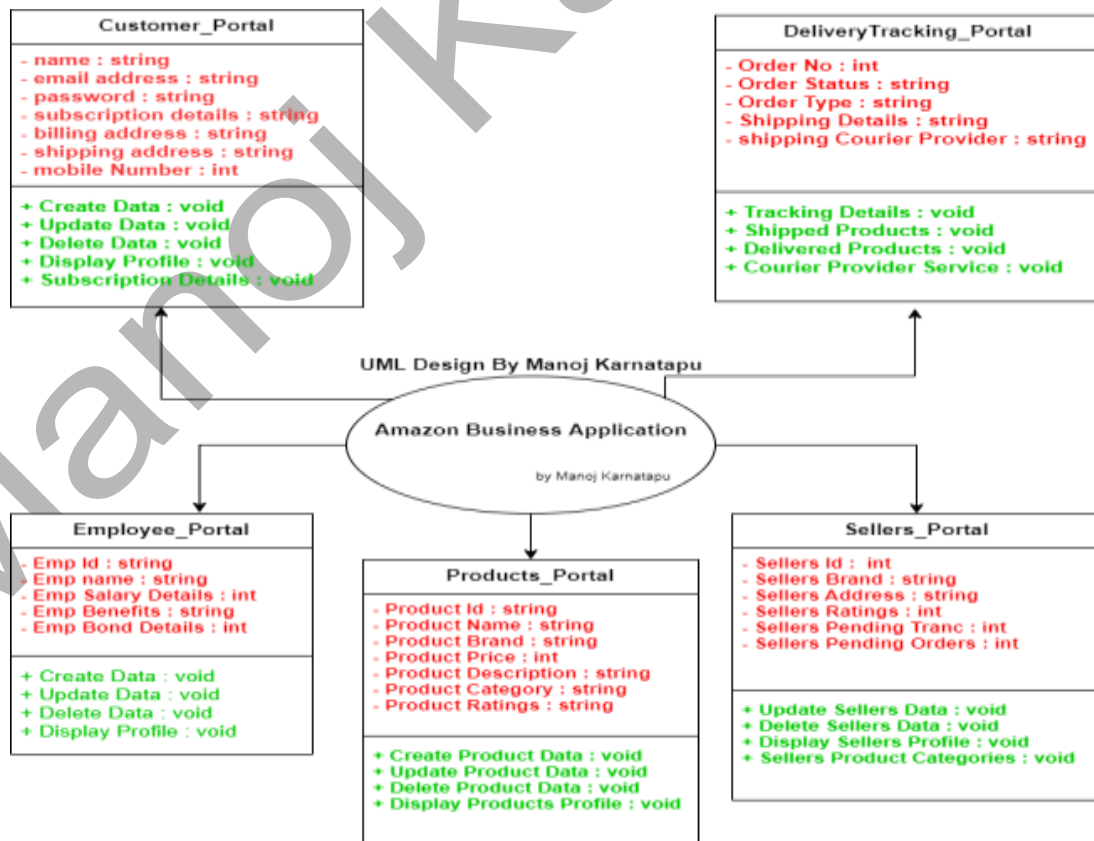
```
        }
    }

    // To Store All Delivery & Tracking Related Data and Functionality(methods)
    class DeliveryTracking_Portal
    {
        private int Order_NO;
        private string Order_Status;
        private string Order_Type;
        private string Shipping_Details;
        private string Shipping_Courier_Provider_Details;

        public void TrackingDetails()
        {
            // ToDo
        }
        public void ShippedProductDetails()
        {
            // ToDo
        }
        public void DeliveredProductDetails()
        {
            // ToDo
        }
        public void CourierProviderServiceDetails()
        {
            // ToDo
        }
    }
}
```

UML Diagram

UML Design By Manoj Karnatapu

Project 2
Apollo Hospitals Project Structure & It's UML Diagram.
Code

```csharp
using System;

namespace Apollo_Hospital_UML_Design
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("This is an Apollo Hospital Application");
            Console.ReadLine();
        }
    }
    class Doctors_Portal
    {
        private string doctorsName;
        private string doctors_designation;
        private int doctors_count;
        private int doctors_Exp;
        public void UpdateData()
        {
            // Todo
        }
        public void DeleteData()
        {
            // ToDo
        }
        public void DisplayProfile()
        {
            // ToDo
        }
        public void Patients_Referred()
        {
            //ToDo
        }
    }
    class Staff_Portal
    {
        private string Staff_name;
        private string staff_address;
        private int staff_count;
        private string staff_exp;
        private int staff_salary;
        private int staff_age;

        public void UpdateStaffData()
        {
            // Todo
        }
        public void DeleteStaffData()
        {
            // ToDo
        }
        public void DisplayStaffProfile()
        {
            // ToDo
        }
        public void StaffDuties()
        {
            //ToDo
        }
    }

    class Medical_Store
```

```csharp
    {
        private string MedicalStoreStaff;
        private int MedicinesCount;
        private string MedicineSuppliers;
        private int Totalincome;
        private string StockDetails;
        private string OrderDetails;

        public void UpdateMedicinesData()
        {
            // Todo
        }
        public void DeleteMedicinesData()
        {
            // ToDo
        }
        public void DisplayStockProfile()
        {
            // ToDo
        }
        public void StoreStaffBenefits()
        {
            //ToDo
        }
    }

    class Patients_Portal
    {
        private string Patients_name;
        private int Patients_age;
        private int Patients_stay_details;
        private string Patients_Referral_Doctor;
        private int Patients_Bill;

        public void BillingCounter()
        {
            // Todo
        }
        public void WardDetails()
        {
            // ToDo
        }
        public void MedicalPrescriptions()
        {
            // ToDo
        }
        public void UpdateProfile()
        {
            // ToDo
        }

        public void DeleteProfile()
        {
            // ToDo
        }
        public void DisplayProfile()
        {
            //ToDo
        }
    }

    class Ambulance_Portal
    {
        private int Ambulance_Count;
        private string Ambulance_Details;
        private string Ambulance_Driver;
        private string Driver_Name;
```
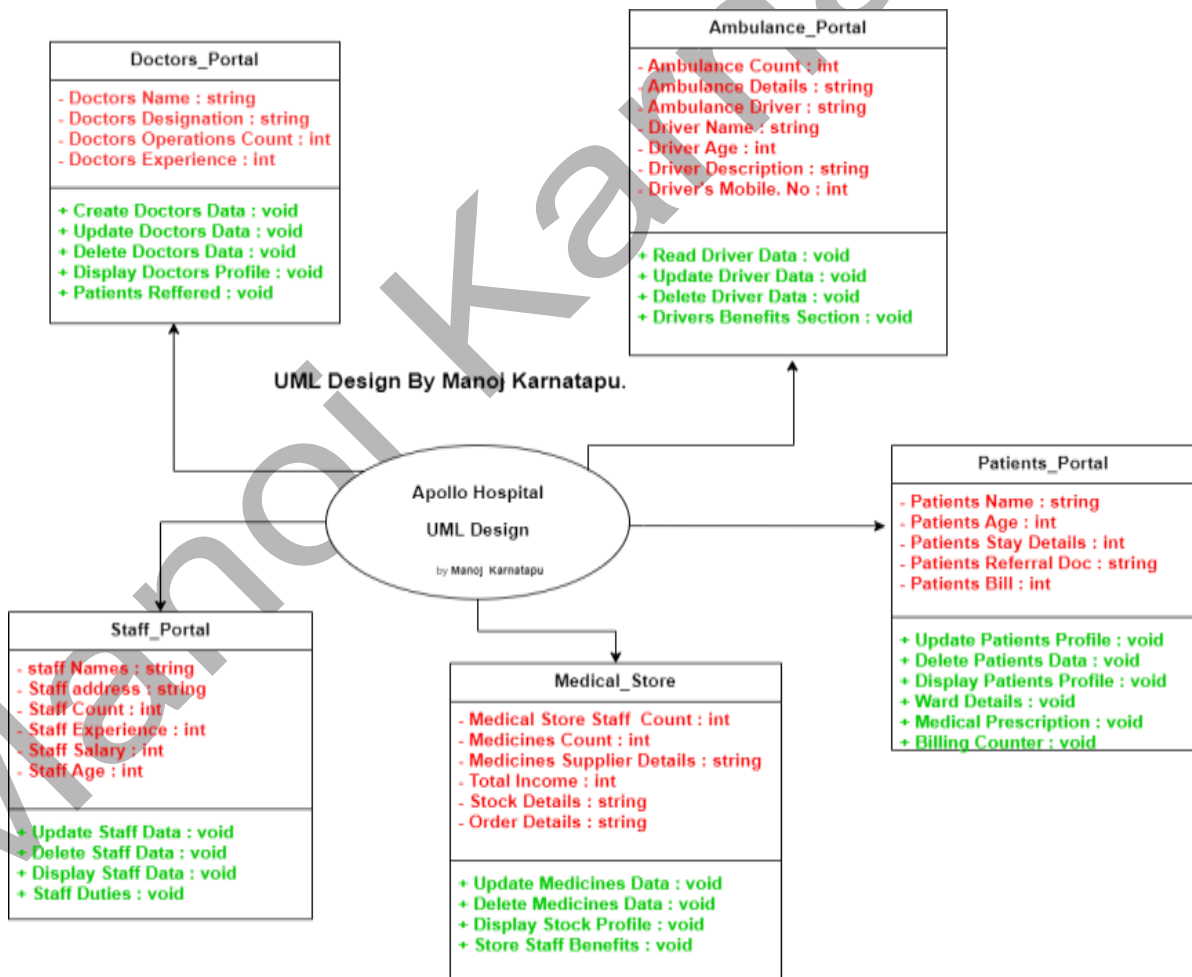
```
        private int Driver_Age;
        private string Driver_Description;
        private int Drivers_MobileNumber;

        public void UpdateData()
        {
            // Todo
        }
        public void DeleteData()
        {
            // Todo
        }
        public void DisplayProfile()
        {
            // Todo
        }
        public void DriversBenefits()
        {
            // Todo
        }
    }
}
```

UML Diagram

UML Design By Manoj Karnatapu.

Doctors_Portal
- Doctors Name : string
- Doctors Designation : string
- Doctors Operations Count : int
- Doctors Experience : int

+ Create Doctors Data : void
+ Update Doctors Data : void
+ Delete Doctors Data : void
+ Display Doctors Profile : void
+ Patients Reffered : void

Ambulance_Portal
- Ambulance Count : int
- Ambulance Details : string
- Ambulance Driver : string
- Driver Name : string
- Driver Age : int
- Driver Description : string
- Driver's Mobile. No : int

+ Read Driver Data : void
+ Update Driver Data : void
+ Delete Driver Data : void
+ Drivers Benefits Section : void

Patients_Portal
- Patients Name : string
- Patients Age : int
- Patients Stay Details : int
- Patients Referral Doc : string
- Patients Bill : int

+ Update Patients Profile : void
+ Delete Patients Data : void
+ Display Patients Profile : void
+ Ward Details : void
+ Medical Prescription : void
+ Billing Counter : void

Staff_Portal
- staff Names : string
- Staff address : string
- Staff Count : int
- Staff Experience : int
- Staff Salary : int
- Staff Age : int

+ Update Staff Data : void
+ Delete Staff Data : void
+ Display Staff Data : void
+ Staff Duties : void

Medical_Store
- Medical Store Staff Count : int
- Medicines Count : int
- Medicines Supplier Details : string
- Total Income : int
- Stock Details : string
- Order Details : string

+ Update Medicines Data : void
+ Delete Medicines Data : void
+ Display Stock Profile : void
+ Store Staff Benefits : void

Apollo Hospital
UML Design
by Manoj Karnatapu

Project 3
Police Station Project Structure & It's UML Diagram.

Code

```csharp
using System;

namespace Ploice_Station_UML_Design
{

    internal class Program
    {

        static void Main(string[] args)
        {

            Console.WriteLine("This is a Police Station Application");
            Console.ReadLine();

        }
    }

    class Police_Staff
    {
        private string PoliceID;
        private string name;
        private string designation;
        private int age;
        private int mobileNumber;
        private int staff_Salaries;
        private string Duties;

        public void UpdateData()
        {
            // Todo
        }
        public void DeleteData()
        {
            // Todo
        }
        public void DisplayProfile()
        {
            // Todo
        }
        public void StaffBenefits()
        {
            // Todo
        }

    }

    class Weapons_Records
    {
        private int Bullets_Count;
        private string Weapon_Name;
        private string Weapon_Owner;
        private string Weapon_Type;
        private string Weapon_Description;
        private string Weapon_Class;

        public void UpdateWeaponData()
        {
            // Todo
        }
        public void DeleteWeaponData()
        {
            // Todo
        }
```

```csharp
    public void DisplayWeaponsStatus()
    {
        // Todo
    }

    public void WeaponsComplaint()
    {
        // Todo
    }

}


class Criminal_Database
{

    private string Criminal_name;
    private int Criminal_age;
    private int Criminal_mobileNumber;
    private string Criminal_Description;
    private int Criminal_Cases;
    private int Criminal_Alert;

    public void UpdateData()
    {
        // Todo
    }


    public void DeleteData()
    {
        // Todo
    }


    public void DisplayCriminalProfile()
    {
        // Todo
    }


}

class Cases
{
    private int Total_Case_count;
    private int Pending_Cases;
    private string Case_Name;
    private string Case_Description;
    private string Case_Status;


    public void ReadCaseData()
    {
        // Todo
    }
    public void UpdateCaseData()
    {
        // Todo
    }
    public void DeleteCaseData()
    {
        // Todo
    }

    public void CaseDetails()
```

```
        {
            // Todo
        }
        public void CaseStatus()
        {
            // Todo
        }
    }
}
```

UML Diagram

Police_Staff

- Police ID : string
- name : string
- Designation : string
- age : int
- mobile Number : int
- Salary : int
- Duties : string

+ Create Data : void
+ Update Data : void
+ Delete Data : void
+ Display Profile : void
+ Police Benefits : void

Cases

- Total Case Count : int
- Pending Cases : int
- Case Name : string
- Case Description : string
- Case Status : string

+ Read Case Data : void
+ Update Case Data : void
+ Delete Case Data : void
+ Case Details : void
+ Case Status : void

UML Design By Manoj Karnatapu.

Police Station Project
by Manoj Karnatapu

Weapons_Record

- Weapon Name : string
- Weapon Type: string
- Weapon Description : string
- Weapon Class : string
- Bullets Count : int
- Weapon Owner : string

+ Update Weapon Data : void
+ Delete Weapon Data : void
+ Display Weapon Status : void
+ Weapons Complaint : void

Criminal_Database

- Criminal Id : string
- Criminal Name : string
- Criminal Age : int
- Criminal Mobile.No : int
- Criminal Description : string
- Criminal Cases : int
- Criminal Alert : string

+ Update Criminal Data : void
+ Delete Criminal Data : void
+ Display Criminal Profile : void