UML Design Patterns

Assignment (28-01-2022)

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Project 1

Amazon Project Structure & It's UML Diagram.

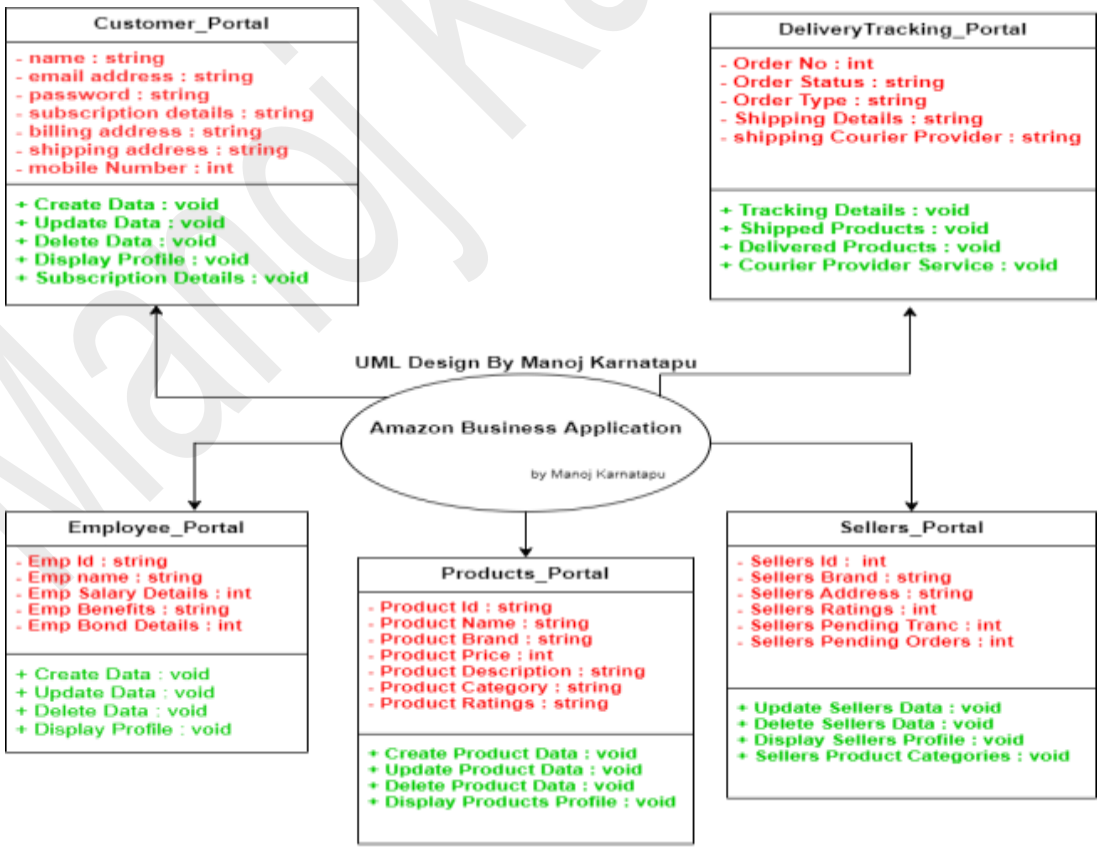
Code

```
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;
```

```
        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



Project 2

Apollo Hospitals Project Structure & It's UML Diagram.

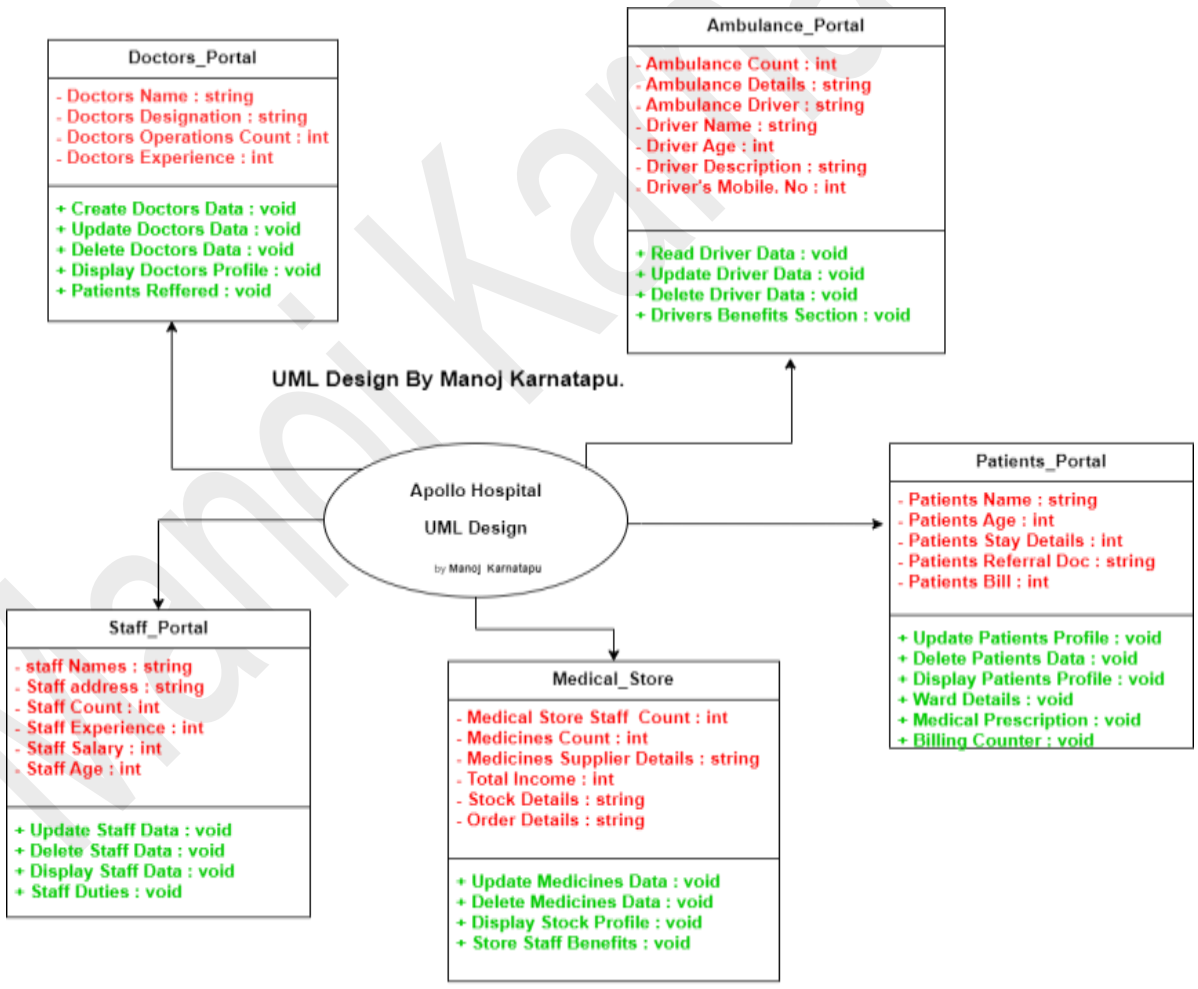
Code

```
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
```

```
    {
        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



Project 3

Police Station Project Structure & It's UML Diagram.

Code

```
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
        }
```

```
        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