

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 int customerId;
        private string customerName;
        private string customerEmailId;
        private string customerPassword;
        private string customerSubscriptionDetails;
        private string customerBillingAddress, customerShippmentAddress;
        private long customerMobileNumber;

        public void CreateCustomerData()
        {
            // ToDo
        }
        public void UpdateCustomerData()
        {
            // Todo
        }
        public void DeleteCustomerData()
        {
            // ToDo
        }
        public void DisplayCustomerProfile()
        {
            // ToDo
        }
        public void SubcribedCustomerDetails()
        {
            // ToDo
        }
    }

    // To Store All Employees Related Data and Functionality(methods)
    class Employees_Portal
    {
        private int employeeId;
        private string employeeName;
        private int employeeAge;
```

```

private long employeePhoneNumber;
private string employeeEmailId;
private float employeeSalary;
private string employeeBenefits;
private int employeeBondDetails;

public void CreateEmployeeData()
{
    // Todo
}
public void UpdateEmployeeData()
{
    // Todo
}
public void DeleteEmployeeData()
{
    // Todo
}
public void DisplayEmployeeProfile()
{
    // Todo
}
public void DisplayEmployeeBenefits()
{
    // Todo
}
}

// To Store All Products Related Data and Functionality(methods)
class Products_Portal
{
    private long productId;
    private string productName;
    private string productDescription;
    private string productBrand;
    private double productPrice;
    private long productStock;
    private string productCategory;
    private string productRatings;

    public void CreateProductData()
    {
        // Todo
    }
    public void UpdateProductData()
    {
        // Todo
    }
    public void DeleteProductData()
    {
        // Todo
    }
    public void DisplayProductsProfile()
    {
        // Todo
    }
    public void DisplayProductBrands()
    {
        // Todo
    }
}

// To Store All Seller's Related Data and Functionality(methods)
class Sellers_Portal
{

```

```

private int sellId;
private string sellBrand;
private string sellAddress;
private int sellRatings;
private int sellPendingTransc;
private int sellPendingOrders;

public void UpdateSellersData()
{
    // Todo
}
public void DeleteSellersData()
{
    // Todo
}
public void DisplaySellersProfile()
{
    // Todo
}
public void SellersProducts()
{
    // Todo
}
public void SellersMarketing()
{
    // Todo
}
}

// To Store All Delivery & Tracking Related Data and Functionality(methods)
class DeliveryTracking_Portal
{
    private long orderId;
    private int customerId;
    private string orderStatus;
    private string deliveryType;
    private string shippingDetails;
    private string shippingCourierProvider;

    public void CreateOrderDetails()
    {
        // Todo
    }
    public void ReturnOrderDetails()
    {
        // Todo
    }
    public void CancelledOrderDetails()
    {
        // Todo
    }
    public void PendingOrderDetails()
    {
        // Todo
    }
    public void ShippedProductDetails()
    {
        // Todo
    }
    public void DeliveredProductDetails()
    {
        // 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 int doctorId;
        private string doctorsName;
        private string doctorsDesignation;
        private long doctorsMobileNumber;
        private int doctorsExperience;
        private string doctorsEmailId;
        private string doctorsAddress;

        public void CreateDoctorsProfile()
        {
            // Todo
        }

        public void UpdateDoctorsProfile()
        {
            // Todo
        }

        public void DeleteDoctorsProfile()
        {
            // ToDo
        }

        public void DisplayDoctorsProfile()
        {
            // ToDo
        }

        public void PatientsReferredDoctor()
        {
            //ToDo
        }

        public void DoctorsWorkHistory()
        {
            // Todo
        }
    }
    class Staff_Portal
    {
        private string employeeName;
        private string employeeAddress;
        private int employeeAge;
        private string employeeEmailId;
        private int staff_count;
        private int employeeExperience;
        private long employeeSalary;
        private string staffBenefits;

        public void CreateEmployeeData()
        {

```

```

        // Todo
    }
    public void UpdateEmployeeData()
    {
        // Todo
    }
    public void DeleteEmployeeData()
    {
        // Todo
    }
    public void DisplayStaffProfiles()
    {
        // Todo
    }
    public void StaffDuties()
    {
        //ToDo
    }
    public void StaffBenefits()
    {
        // Todo
    }
}

class Medicines
{
    private int medicineId;
    private string medicineName;
    private int medicineCount;
    private string medicineSuppliers;
    private float medicineCost;
    private int availableStock;
    private string orderedMedicinesDetails;

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

class Patients_Portal
{
    private int patientId;
    private string patientsName;
    private int patientsAge;
    private string patientsAddress;
    private string patientsEmailId;
    private long patientMobileNumber;
    private int patientStay;
    private string patientsReferralDoctor;
    private int patientsBill;

```

```

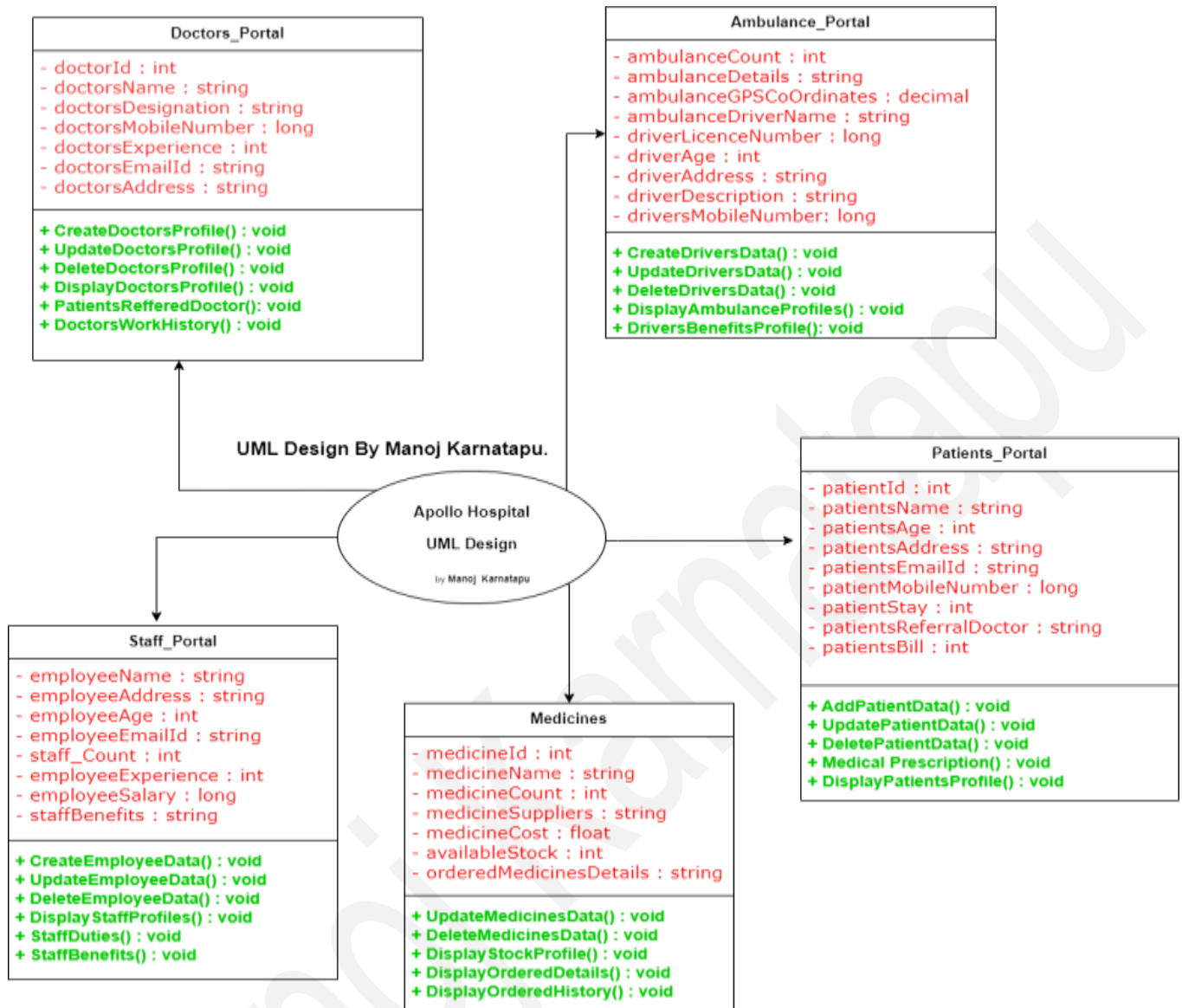
    public void AddPatientData()
    {
        // Todo
    }
    public void UpdatePatientData()
    {
        // Todo
    }
    public void DeletePatientData()
    {
        // todo
    }
    public void MedicalPrescription()
    {
        // ToDo
    }
    public void DisplayPatientProfile()
    {
        //ToDo
    }
}

class Ambulance_Portal
{
    private int ambulanceCount;
    private string ambulanceDetails;
    private decimal ambulanceGPSCoOrdinates;
    private string ambulanceDriverName;
    private long driverLicenceNumber;
    private int driverAge;
    private string driverAddress;
    private string driverDescription;
    private long driversMobileNumber;

    public void CreateDriversData()
    {
        // Todo
    }
    public void UpdateDriversData()
    {
        // Todo
    }
    public void DeleteDriversData()
    {
        // Todo
    }
    public void DisplayAmbulanceProfiles()
    {
        // Todo
    }
    public void DriversBenefitsProfile()
    {
        // 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 int policeID;
        private string officerName;
        private string officerDesignation;
        private int officerAge;
        private long officerMobileNumber;
        private long officerSalary;
        private string officerDuties;

        public void CreatePoliceData()
        {
            // Todo
        }
        public void UpdatePoliceData()
        {
            // Todo
        }
        public void DeletePoliceData()
        {
            // Todo
        }
        public void DisplayPoliceProfile()
        {
            // Todo
        }
        public void DisplayPoliceBenefits()
        {
            // Todo
        }
    }

    class Weapons_Records
    {
        private int bulletsCount;
        private string weaponName;
        private string weaponHandlingOwnerName;
        private string weaponType;
        private string weaponDescription;
        private string weaponClass;

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

```

    }
    public void DeleteWeaponData()
    {
        // Todo
    }
    public void DisplayWeaponsStatus()
    {
        // Todo
    }
    public void WeaponsComplaintLogs()
    {
        // Todo
    }
}
class Criminal_Database
{
    private int criminalId;
    private string criminalName;
    private int criminalAge;
    private long criminalMobileNumber;
    private string criminalDescription;
    private int criminalCases;
    private string criminalAlert;

    public void CreateCriminalData()
    {
        // Todo
    }
    public void UpdateCriminalData()
    {
        // Todo
    }
    public void DeleteCriminalData()
    {
        // Todo
    }
    public void DisplayCriminalsProfile()
    {
        // Todo
    }
    public void DisplayCriminalRecordsHistory()
    {
        // Todo
    }
}
class Cases
{
    private int totalCasecount;
    private int pendingCases;
    private string caseName;
    private string caseDescription;
    private string caseStatus;

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

```

```

    }

    public void CaseDetails()
    {
        // Todo
    }
    public void CaseStatus()
    {
        // Todo
    }
}
class Prision_Records
{
    private string prisionName;
    private string prisionLocation;
    private string prisionType; //sub-jail,Central jail,District jail,Open jail,
Special jail, Women's jail, Borstal School.
    private int prisionCapacity;
    private string prisionInchargeName;

    public void CreatePrisionData()
    {
        // Todo
    }
    public void UpdatePrisionData()
    {
        // Todo
    }
    public void DeletePrisionData()
    {
        // Todo
    }
    public void DisplayPrisionDetails()
    {
        // Todo
    }
    public void DisplayPrisionsStaffDetails()
    {
        // Todo
    }
}
}

```

UML Diagram

