

C# model Classes & UML diagrams
Day 5 Assignment on 28/01/2022
By
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Amanzon model online marketing System	
Classes	
Product	
Customer	
Supplier	
Supplier_Product	
Cart	
Cart_items	
Check_out	
Shipping	
<u>Product Class</u>	
<u>Code</u>	
<pre>class Product { string Product_Id; string Product_Name; string Short_Description ; string Full_Description ; float Price; string Category; string Technical_Specification; string Additional_Specification; string Special features; string Images_File_Name; string Videos_File_Name; float Weight; string Dimensions; string Model; string Manufacture; DateTime Mfg date; DateTime date Expire date; int Warranty; string Warranty_Unit; int Additional_Warranty; string Additional_Warranty_Unit; string Sells_Status; int Sells_Ranking;</pre>	

```
string Buy_It_List;  
string Related_Category_List;  
string Similar_Category_List;  
string Products_Related_To_This_Item_List;  
string Product_Review_List;
```

```
public static void Product_Add()
```

```
{  
    //To Do  
}
```

```
public static void Product_Edit()
```

```
{  
    //To Do  
}
```

```
public static void Product_Delete()
```

```
{  
    //To Do  
}
```

```
public static void Product_Suspend()
```

```
{  
    //To Do  
}
```

```
public static void Product_Activity()
```

```
{  
    //To Do  
}
```

```
public static void Product_Remove()
```

```
{  
    //To Do  
}
```

```
public static void Product_Listing()
```

```
{  
    //To Do  
}
```

```
public static void Product_Searching()
```

```
{  
    //To Do  
}
```

```
public static void Compare_Similar_Items()
```

```
{  
    //To Do  
}
```

```
public static void Product_Review()
```

```
{  
    //To Do  
}
```

```
}
```

UML Diagram of Product Class

Product
+Product_Id:string
+Product_Name:string
+Short_Description :string
+Full_Description :string
+Price:float
+Category:string
+Technical_Specification:string
+Additional_Specification:string
+Special features:string
+Images_File_Name:string
+Videos_File_Name:string
+Weight:float
+Dimensions:string
+Model:string
+Manufacture:string
+Mfg date:DateTime
+Expire date:DateTime
+Warranty:int
+Warranty_Unit:string
+Additional_Warranty:int
+Additional_Warranty_Unit:string
+Sells_Status:string
+Sells_Ranking :int
+Buy_It_List:string
+Related_Category_List:string
+Similar_Category_List:string
+Products_Related_To_This_Item_List:string
+Product_Review_List:string
+Product_Add():void
+Product_Edit():void
+Product_Delete():void
+Product_Suspend():void
+Product_Activity():void
+Product_Remove():void
+Product_Listing():void
+Product_Searching():void
+Compare_Similar_Items():void
+Product_Review():void

Customer Class

Code

```
class Customer
{
    string Customer_Id;
    string Customer_Name;
    string Login;
    string Password;
    string Email_id;
    long Mobile_No;
    string Address;
    string Billing_Addresses;
    string Type_of_Customer;
    string Browsed_Item_List;
    string Order_List;
    string Payment_options;
    string Memberships_And_Subscriptions;
    public static void Customer_Join()
    {
        //To Do
    }
    public static void Customer_Activity_Deactivity()
    {
        //To Do
    }
    public static void Customer_Quit()
    {
        //To Do
    }
    public static void Customer_Edit()
    {
        //To Do
    }
    public static void Customer_List()
    {
        //To Do
    }
    public static void Customer_Search()
    {
        //To Do
    }
    public static void Customer_Order_List()
```

```
{  
    //To Do  
}  
public static void Customer_Cart_List()  
{  
    //To Do  
}  
public static void Customer_Wish_List()  
{  
    //To Do  
}  
public static void Add_payment_Options()  
{  
    //To Do  
}  
public static void Remove_payment_Options()  
{  
    //To Do  
}  
public static void Edit_payment_Options()  
{  
    //To Do  
}  
public static void Add_Memberships_And_Subscriptions()  
{  
    //To Do  
}  
public static void Edit_Memberships_And_Subscriptions()  
{  
    //To Do  
}  
public static void Remove_Memberships_And_Subscriptions()  
{  
    //To Do  
}  
}
```

UML diagram

Customer	
+Customer_Id:string	
+Customer_Name:string	
+Login:string	
+Password:string	
+Email_id:string	
+Mobile_No:long	
+Address:string	
+Billing Addresses:string	
+Type_of_Customer:string	
+Browsed_Item_List:string	
+Order_List:string	
+Payment_options:string	
+Memberships_And_Subscriptions:string	
+Customer_Join():void	
+Customer_Activity_Deactivity():void	
+Customer_Quit():void	
+Customer_Edit():void	
+Customer_List():void	
+Customer_Search():void	
+Customer_Order_List():void	
+Customer_Cart_List():void	
+Customer_Wish_List():void	
+Add_payment_Options():void	
+Remove_payment_Options():void	
+Edit_payment_Options():void	
+Add_Memberships_And_Subscriptions():void	
+Edit_Memberships_And_Subscriptions():void	
+Remove_Memberships_And_Subscriptions():void	

Supplier Class

Code

```
class Supplier
{
    string Supplier_Id;
    string Name;
    string Address;
    string Supplier_Type;
    string Supplier_Status;

    public static void Supplier_add()
    {
        //To Do
    }
    public static void Supplier_Edit()
    {
        //To Do
    }
    public static void Supplier_Suspend()
    {
        //To Do
    }
    public static void Supplier_Remove()
    {
        //To Do
    }
    public static void Supplier_Search()
    {
        //To Do
    }
}
```

UML Diagram

Supplier
+Supplier_Id:string
+Name:string
+Address:string
+Supplier_Type:string
+Supplier_Status:string
+Supplier_add():void
+Supplier_Edit():void
+Supplier_Suspend():void
+Supplier_Remove ():void
+Supplier_Search():void

Supplier Product Class

Code

```
class Supplier_Product
{
    string Supplier_id;
    string Product_id;
    int Quantity;
    float Price;
    float Discount_Percentage;
    float Discount_Amount;

    public static void Add_Product()
    {
        //To Do
    }
    public static void Remove_Prodct()
    {
        //To Do
    }
    public static void Change_Price()
    {
        //To Do
    }
    public static void Add_Discount_Offer()
    {
        //To Do
    }
}
```

UML diagram

Supplier_Product
+Supplier_id:string
+Product_id:string
+Quantity:int
+Price:float
+Discount_Percentage:float
+Discount_Amount:float
+Add_Product():void
+Remove_Prodct():void
+Change_Price():void
+Add_Discount_Offer():void

Cart Class

Code

```
class Cart

{

    string Cart_Id;

    DateTime Date;

    int No_of_items;

    float Amount;

    float Banker_discount;

    string Payment_type;

    string Payment_Mode;


    public static void Order()

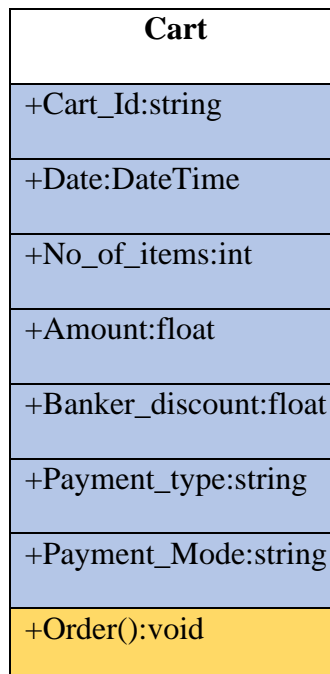
    {

        //To Do

    }

}
```

UML Diagrams



Cart_items Class

Code

```
class Cart_items
{
    string Cart_id;
    string Product_id;
    int Qty;
    float Cart_Price;
    float Billed_Price;
    float Manufacture_discount_Percentage;
    float Manufacture_discount_Amount;

    public static void Add_To_Cart()
    {
        //To Do
    }
    public static void Move_To_Future_Cart()
    {
        //To Do
    }
    public static void Remove_From_Cart()
    {
        //To Do
    }
    public static void Alter_Qty()
    {
        //To Do
    }
}
```

UML diagram

Cart_items
+Cart_id:string
+Product_id:string
+Qty:int
+Cart_Price:float
+Billed_Price:float
+Manufacture_discount_Percentage:float
+Manufacture_discount_Amount:float
+Add_To_Cart():void
+Move_To_Future_Cart():void
+Remove_From_Cart():void
+Alter_Qty():void

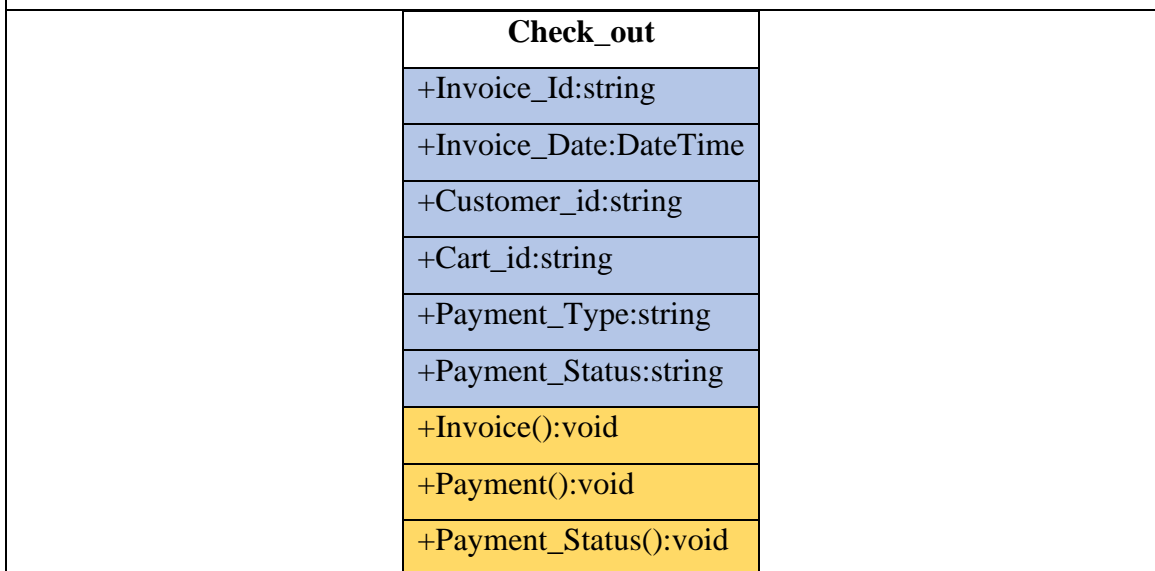
Check_out Class

Code

```
class Check_out
{
    string Invoice_Id;
    DateTime Invoice_Date;
    string Customer_id;
    string Cart_id;
    string Payment_Type;
    string Payment_Status;

    public static void Order()
    {
        //To Do
    }
    public static void Payment()
    {
        //To Do
    }
    public static void Payment_Status()
    {
        //To Do
    } }
}
```

UML Diagram



Shipping Class

Code

```
class Shipping
{
    string Shipping_id;
    DateTime Shipping_date;
    string Invoice_Id;
    string Delivery_Address;
    string Supplier_id;
    string Supplier_Warehouse_Address;
    string Return_Address;
    string Route;
    string Delivery_status;
    DateTime Delivery_Date;

    public static void Shipping()
    {
        //To Do
    }
    public static void Tracking()
    {
        //To Do
    }
    public static void Lost_In_Transit()
    {
        //To Do
    }

    public static void Item_Return()
    {
        //To Do
    }

    public static void Delivery()
    {
        //To Do
    }

    public static void Cancel()
    {
        //To Do
    }
}
```

UML Diagram

Shipping
+Shipping_id:string
+Shipping_date:DateTime
+Invoice_Id:string
+Delivery_Address:string
+Supplier_id:string
+Supplier_Warehouse_Address:string
+Return_Address:string
+Route:string
+Delivery_status:string
+Delivery_Date:DateTime
+Shipping():void
+Tracking():void
+Lost_In_Transit():void
+Item_Return():void
+Delivery():void
+Cancel():void

<u>Hospital management system</u>
Classes
Patient
Visiting
Doctor
Diagnosis_Testing
Pharmacy
Pharmacy_Billing
In_Patient
In_Patient_Doctor_Visting
Ward
In_Patient_Billing
<u>Patient Class</u>
<u>Code</u>
<pre> class Patient { string Patient_id; string Patient_Name; string Gender; char Blood_Group; string Address; float Mobile_No; string Email_id; float Emergency_Contract_No1; float Emergency_Contract_No2; string Past_History; string List_of_chronic_Diseases; public static void Add_Patient() { //To Do } public static void Edit_Patient_Details() { //To Do } public static void Update_Death() { //To Do } public static void Generate_Patient_Diagnosis_Report() { //To Do } public static void Generate_Patient_Health_Report() { //To Do } public static void Generate_Patient_Visting_History() </pre>

```

{
    //To Do
}

public static void Listing_Of_Patients()
{
    //To Do
}

public static void Searching_Patient()
{
    //To Do
}
}

```

UML Diagram

Patient
+Patient_id:string
+Patient_Name:string
+Gender:string
+Blood_Group:char
+Address:string
+Mobile_No:float
+Email_id:string
+Emergency_Contract_No1:float
+Emergency_Contract_No2:float
+Past_History:string
+List_of_chronic_Dieases:string
+Add_Patient():void
+Edit_Patient_Details():void
+Update_Death():void
+Generate_Patient_Diagnosis_Report():void
+Generate_Patient_Health_Report():void
+Generate_Patient_Visting_History():void
+Listing_Of_Patients():void
+Searching_Patient():void

Visiting Class

Code

```
class Visiting
{
    string Visiting_id;
    DateTime Visiting_Date;
    string Visiting_Doctor_Id;
    string Referral_Doctor_Name;
    string Referral_Hospital_Name;
    string Visiting_Result;

    public static void Visiting()
    {
        //To Do
    }
    public static void Diagnosis_Test()
    {
        //To Do
    }
    public static void Diagnosis_Report()
    {
        //To Do
    }
    public static void Medicine_Prescription()
    {
        //To Do
    }
    public static void Doctor_Referral()
    {
        //To Do
    }
    public static void Consoling()
    {
        //To Do
    }
    public static void Patient_Admit()
    {
        //To Do
    }
    public static void Discharge_Patient()
    {
        //To Do
    }
}
```


UML Diagram

Visiting
+Visiting_id:string
+Visiting_Date:DateTime
+Visiting_Doctor_Id:string
+Referral_Doctor_Name:string
+Referral_Hospital _Name:string
+Visiting_Result:string
+Visiting():void
+Diagnosis_Test():void
+Diagnosis_Report():void
+Medicine_Prescription():void
+Doctor_Referral():void
+Consoling() :void
+Patient_Admit():void
+Discharge_Patient():void

Doctor Class

Code

```
class Doctor
{
    string Doctor_id;
    string Regd_Medical_Practitioner_No;
    string Doctor_Name;
    string Gender;
    char Blood_Group;
    string Address;
    float Mobile_No;
    string Email_id;
    string Qualification_List;
    string Specialisation1;
    string Specialisation2;
    string Specialisation3;
    string Type_Doctor;

    public static void Attending_Patient()
    {
        //To Do
    }
    public static void Diagnosing()
    {
        //To Do
    }
    public static void Suggesting_Testing()
    {
        //To Do
    }
    public static void Administering_Medicine()
    {
        //To Do
    }
    public static void Joining()
    {
        //To Do
    }
    public static void Transfer()
    {
        //To Do
    }
    public static void Retiring()
    {
        //To Do
    }
}
```

UML Diagram

Doctor
+Doctor_id:string
+Regd_Medical_Practitioner_No:string
+Doctor_Name:string
+Gender:string
+Blood_Group:char
+Address:string
+Mobile_No:float
+Email_id:string
+Qualification_List:string
+Specialisation1:string
+Specialisation2:string
+Specialisation3:string
+Type_Doctor:string
+Attending_Patient():void
+Diagnosing():void
+Suggesting_Testing():void
+Administering_Medicine():void
+Joining():void
+Transfer():void
+Retiring():void

Diagnosis_Testing Class

Code

```
class Diagnosis_Testing
{
    string Test_id;
    string Test_Name;
    DateTime Testing_Date;
    string Patient_id;
    string Refferal_Doctor;
    string Test_Report;
    bool Report_submitted;
    string Bill_No;
    float Billing_Amount;
    bool Payment_Status;
    string Payment_Mode;
    public static void Billing_Out_Patient()
    {
        //To Do
    }
    public static void Billing_In_Patient()
    {
        //To Do
    }
    public static void Payment()
    {
        //To Do
    }
    public static void Generation_Report()
    {
        //To Do
    }
    public static void Submission_Report()
    {
        //To Do
    }
}
```

UML Diagram

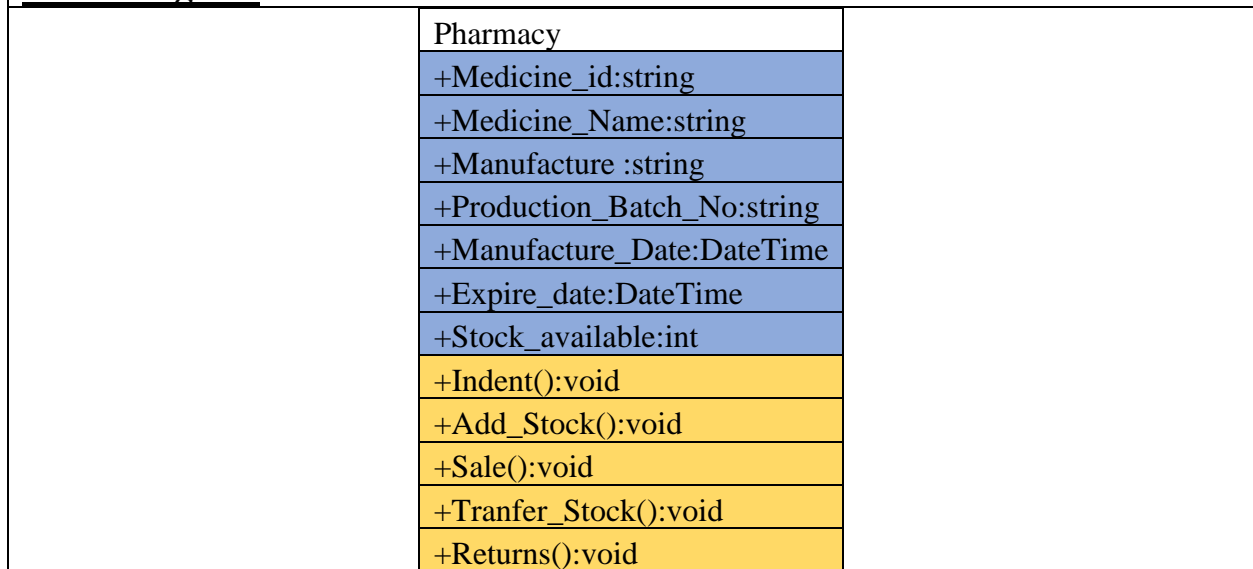
	Diagnosis_Testing	
	+Test_id:string	
	+Test_Name:string	
	+Testing_Date:DateTime	
	+Patient_id:string	
	+Refferal_Doctor:string	
	+Test_Report:string	
	+Report_submitted:bool	
	+Bill_No:string	
	+Billing_Amount:float	
	+Payment_Status:bool	
	+Payment_Mode:string	
	+Billing_Out_Patient():void	
	+Billing_In_Patient():void	
	+Payment():void	
	+Generation_Report():void	
	+Submission_Report():void	

Pharmacy Class

Code

```
class Pharmacy
{
    string Medicine_id;
    string Medicine_Name;
    string Manufacture;
    string Production_Batch_No;
    DateTime Manufacture_Date;
    DateTime Expire_date;
    int Stock_available;
    public static void Indent()
    {
        //To Do
    }
    public static void Add_Stock()
    {
        //To Do
    }
    public static void Sale()
    {
        //To Do
    }
    public static void Tranfer_Stock()
    {
        //To Do
    }
    public static void Returns()
    {
        //To Do
    }
}
```

UML Diagram



Pharmacy Billing Class

Code

```
class Pharmacy_Billing
{
    string Bill_No;
    DateTime Bill_date;
    string Patient_id;
    string Prescription_id;
    string Refferal_Doctor;
    string List of medicine;
    float Billed_Amount;
    float Discount_Amount;
    bool Payment_Status;
    string Payment_mode;
    public static void Receiving_Prescription()
    {
        //To Do
    }
    public static void Supply_Medicine()
    {
        //To Do
    }
    public static void Billing()
    {
        //To Do
    }
    public static void Cancel_Bill()
    {
        //To Do
    }
    public static void Payment()
    {
        //To Do
    }
    public static void Returns()
    {
        //To Do
    }
}
```

UML Diagram

Pharmacy_Billing
+Bill_No:string
+Bill_date:DateTime
+Patient_id:string
+Prescription_id:string
+Refferal_Doctor:string
+List of medicine:string
+Billed_Amount:float
+Discount_Amount:float
+Payment_Status:bool
+Payment_mode:string
+Receiving_Prescription():void
+Supply_Medicine():void
+Billing():void
+Cancel_Bill():void
+Payment():void
+Returns():void

In_Patient Class

Code

```
class In_Patient
{
    string Patient_id;
    DateTime Joining_Date;
    DateTime Case_File_No;
    string Refferal_Doctor;
    string Bed_No;
    string Ward_No;
    string Discharge_Summary;
    public static void Joining()
    {
        //To Do
    }
    public static void Shifting()
    {
        //To Do
    }
    public static void Discharge()
    {
        //To Do
    }
    public static void Generation_Discharge_summary()
    {
        //To Do
    }
    public static void Billing()
    {
        //To Do
    }
}
```

UML Diagram

In_Patient
+Patient_id:string
+Joining_Date:DateTime
+Case_File_No:DateTime
+Refferal_Doctor:string
+Bed_No:string
+Ward_No:string
+Discharge_Summary:string
+Joining():void
+Shifting():void
+Discharge():void
+Generation_Discharge_summary():void
+Billing():void

In Patinent Doctor Visting Class

Code

```
class In_Patinent_Doctor_Visting
{
    string Patient_Id;
    string Doctor_id;
    DateTime Visiting_Date;
    string Medicine_Advised;
    float Visting_Charges;
    string Treatment_Given;
    string Medicine_Used;

    public static Void Diagnosis_Test()
    {
        //To Do
    }
    public static Void Diagnosis_Report()
    {
        //To Do
    }
    public static Void Medicine_Prescription()
    {
        //To Do
    }
    public static Void Doctor_Referral()
    {
        //To Do
    }
    public static Void Consoling()
    {
        //To Do
    }
    public static Void Reporting-Status()
    {
        //To Do
    }
    public static Void Advise_Discharge()
    {
        //To Do
    }
}
```

UML Diagram

In_Patient_Doctor_Visting

+Patient_Id:string

+Doctor_id:string

+Visiting_Date:DateTime

+Medicine_Advised:string

+Visting_Charges:float

+Treatment_Given:string

+Medicine_Used:string

+Diagnosis_Test():void

+Diagnosis_Report():void

+Medicine_Prescription():void

+Doctor_Referral():void

+Consoling():void

+Reporting-Status():void

+Advise_Discharge():void

Ward Class

Code

```
class Ward
{
    string Ward_No;
    string Name_Ward;
    int No_of_Beds;
    string Medical_Facilities_Available_List;
    string Ward_headed_By;
    int No_Nominated_Staff;
    public static void Creation_Ward()
    {
        //To Do
    }
    public static void Add_ Medical_Facilities()
    {
        //To Do
    }
    public static void Transfer_ Medical_Facilities()
    {
        //To Do
    }
    public static void Remove_ Medical_Facilities()
    {
        //To Do
    }
    public static void Listing_Wards()
    {
        //To Do
    }
    public static void Search_Ward()
    {
        //To Do
    }
    public static void Listing_Vacant_Beds()
    {

```

```

        //To Do
    }
    public static void Search_Vacant_Bed()
    {
        //To Do
    }
}

```

UML Diagram

	Ward	
	+Ward_No:string	
	+Name_Ward:string	
	+No_of_Beds:int	
	+Medical_Facilities_Available_List:string	
	+Ward_headed_By:string	
	+No_Nominated_Staff:int	
	+Creation_Ward():void	
	+Add_Medical_Facilities():void	
	+Transfer_Medical_Facilities():void	
	+Remove_Medical_Facilities():void	
	+Listing_Wards():void	
	+Search_Ward():void	
	+Listing_Vacant_Beds():void	
	+Search_Vacant_Bed():void	

In Patient Billing Class

Code

```

class In_Patient_Billing
{
    string Bill_No;
    DateTime Bill_Date;
    string Patient_id;
    string Name;
    String Refferal_Doctor;
    DateTime Joining_Date;
    DateTime Discharge_Date;
    float Doctors_charges;
    float Nursing_Charges;
    float Operation_charges;
    float Lab_charges;
    float Medicine_charges;
    float Room_charges;
    float Total_Bill_Amount;
    float Discount;
    float Net_Bill;

    public static void Billing()
    {
        //To Do
    }
    public static void Edit_Bill()
    {
        //To Do
    }
}

```

```

public static void Discount()
{
    //To Do
}
public static void Payment_Status()
{
    //To Do
}
}

```

UML Diagram

In_Patient_Billing
+Bill_No:string
+Bill_Date:DateTime
+Patient_id:string
+Name:string
+Refferal_Doctor:string
+Joining_Date:DateTime
+Discharge_Date:DateTime
+Doctors_charges:float
+Nursing_Charges:float
+Operation_charges:float
+Lab_charges:float
+Medicine_charges:float
+Room_charges:float
+Total_Bill_Amount:float
+Discount:float
+Net_Bill:float
+Billing():void
+Edit_Bill():void
+Discount():void
+Payment_Status():void

Police Station System
Classes
Citizen
Complaint
Crime
Employees
Teams
Team_ Complaint
Reports
Court_Case
<u>Citizen Class</u>
<u>Code</u>
<pre> class Citizen { string Police_Dairy_No; string Name; float Aadhar_No; string Gender; string Company; string Address; float Mobile_No; float Alternate_Mobile_No; string Email_id; string Alternate_Mobile_No; int Area_Circle_No; public static void Add_Complainant { //To Do } public static void Edit_ Complainant { //To Do } public static void Search_ Complainant() { //To Do } public static void List_ Complainants() { //To Do } } </pre>

UML Diagram

Citizen
+Police_Dairy_No:string
+Name:string
+Aadhar_No:float
+Gender:string
+Company:string
+Address:string
+Mobile_No:float
+Alternate_Mobile_No:float
+Email_id:string
+Alternate_Mobile_No:string
+Area_Circle_No:int
+Add_Complainant:void
+Edit_Complainant:void
+Search_Complainant():void
+List_Complainants():void

Complaint Class

Code

```
class Complaint
{
    string Complaint_No;
    DateTime Complaint_Date;
    string Complaint_Register_By;
    string Complainant_List;
    string Complainant_Address_List;
    string Subject;
    string Category;
    string Sub_Category;
    string Original_IPC_Sec_List;
    string Accused_List;
    string Accused_Address_List;
    int No_Of_Supplementary_Complaints;
    string Supported_By_List;
    string Witness_List;
    string Status_of_Complaint;
    string Court_Case_No;
    string Case_IPC_Sec_List;
    string Case_Final_IPC_Sec_List;
    string Court_case_Filing_Date;
    string Public_Prosecutor_Name;
    string Council_of_Lawyers_List;

    public static void Lodge_Complaint()
    {
        //To Do
    }
}
```

```
}  
public static void Supplementary_Complaint()  
{  
    //To Do  
}  
public static void Withdraw_Complaint()  
{  
    //To Do  
}  
public static void Add_Affidavit()  
{  
    //To Do  
}  
public static void Withdraw_Affidavit()  
{  
    //To Do  
}  
public static void Add_Supporter()  
{  
    //To Do  
}  
public static void Remove_Supporter()  
{  
    //To Do  
}  
public static void Add_Witness()  
{  
    //To Do  
}  
public static void Remove_Witness()  
{  
    //To Do  
}  
public static void Assign_Investigation_Team()  
{  
    //To Do  
}  
public static void Add_Invetigation_Reports()  
{  
    //To Do  
}  
public static void Add_Public_Prosecutor()  
{  
    //To Do  
}  
public static void Change_Public_Prosecutor()  
{  
    //To Do  
}  
public static void Add_Council_of_Lawyers()  
{  
    //To Do  
}
```

```

public static void Edit_ Council_of_Lawyers()
{
    //To Do
}
public static void Remove_ Council_of_Lawyers()
{
    //To Do
}
public static void Filing_Court_Case()
{
    //To Do
}
public static void Edit_Court_Case()
{
    //To Do
}
public static void Status_Update()
{
    //To Do
}
public static void Close_ Complaint()
{
    //To Do
}
public static void List_Complaints()
{
    //To Do
}
public static void Search_Compliants()
{
    //To Do
}
}

```

UML Diagram

Complaint
+Complaint_No:string
+Complaint_Date:DateTime
+Complaint_Register_By:string
+Complainant_List:string
+Complainant_Address_List:string
+Subject:string
+Category:string
+Sub_Category:string
+Original_IPC_Sec_List:string
+Accused_List:string
+Accused_Address_List:string
+No_Of_Supplementary_Complaints:int

+Supported_By_List:string
+Witness_List:string
+Status_of Complaint:string
+Court_Case_No:string
+Case_IPC_Sec_List:string
+Case_Final_IPC_Sec_List:string
+Court_case_Filing_Date:string
+Public_Prosecutor_Name:string
+Council_of_Lawyers_List:string
+Lodge_Complaint():void
+Supplementary_Complaint():void
+Withdraw_Complaint():void
+Add_Affidavit():void
+Withdraw_Affidavit():void
+Add_Supporter():void
+Remove_Supporter():void
+Add_Witness():void
+Remove_Witness():void
+Assign_Investigation_Team():void
+Add_Invetigation_Reports():void
+Add_Public_Prosecutor():void
+Change_Public_Prosecutor():void
+Add_Council_of_Lawyers():void
+Edit_Council_of_Lawyers():void
+Remove_Council_of_Lawyers():void
+Filing_Court_Case():void
+Edit_Court_Case():void
+Status_Update():void
+Close_Complaint():void
+List_Complaints():void
+Search_Compliants():void

Crime Class

Code

```
class Crime
{
    string Crime_id;
    DateTime Crime_dt;
    string Location_of_Crime;
    string Crime_Reported_By;
    string Description_Of_Crime;
    string Category;
    string Sub_Category;
    string Original_IPC_Sec_List;
    string Accused_List;
    string Accused_Address_List;
    string Witness_List;
    string Witness_Address_List;
    string Status_Of_Case;
    string Court_Case_No;
    string Case_IPC_Sec_List;
    string Case_Final_IPC_Sec_List;
    DateTime Court_Case_Filing_Date;
    string Public_Prosecutor_Name;
    string Counsil-Of_Lawyers_List;

    public static void Crime_Reported()
    {
        //To Do
    }
    public static void Case_Filing()
    {
        //To Do
    }
    public static void Assign_case()
    {
        //To Do
    }
    public static void Add_Affidavit()
    {
        //To Do
    }
    public static void Withdraw_Affidavit()
    {
        //To Do
    }
    public static void Add_Witness()
    {
        //To Do
    }
    public static void Remove_Witness()
    {
        //To Do
    }
    public static void Assign_Investigation_Team()
    {
        //To Do
    }

    public static void Add_Invetigation_Reports()
```

```
{
    //To Do
}
public static void Add_Public_Prosecutor()
{
    //To Do
}
public static void Change_Public_Prosecutor()
{
    //To Do
}
public static void Add_ Council_of_Lawyers()
{
    //To Do
}
public static void Edit_ Council_of_Lawyers()
{
    //To Do
}
public static void Remove_Council_of_Lawyers()
{
    //To Do
}
public static void Filing_Court_Case()
{
    //To Do
}
public static void Edit_Court_Case()
{
    //To Do
}
public static void Status_Update()
{
    //To Do
}
public static void Close_ Complaint()
{
    //To Do
}
public static void List_Complaints()
{
    //To Do
}
public static void Search_Compliants()
{
    //To Do
}
}
```

UML Diagram

Crime
+Crime_id:string
+Crime_dt:DateTime
+Location_of_Crime:string
+Crime_Reported_By:string
+Description_Of_Crime:string
+Category:string
+Sub_Category:string
+Original_IPC_Sec_List:string
+Accused_List:string
+Accused_Address_List:string
+Witness_List:string
+Witness_Address_List:string
+Status_Of_Case:string
+Court_Case_No:string
+Case_IPC_Sec_List:string
+Case_Final_IPC_Sec_List:string
+Court_Case_Filing_Date:DateTime
+Public_Prosecutor_Name:string
+Counsil-Of_Lawyers_List:string
+Crime_Reported():void
+Case_Filing():void
+Assign_case():void
+Add_Affidavit():void
+Withdraw_Affidavit():void
+Add_Witness():void
+Remove_Witness():void
+Assign_Investigation_Team():void
+Add_Invetigation_Reports():void
+Add_Public_Prosecutor():void
+Change_Public_Prosecutor():void
+Add_Council_of_Lawyers():void
+Edit_Council_of_Lawyers():void
+Remove_Council_of_Lawyers():void
+Filing_Court_Case():void
+Edit_Court_Case():void
+Status_Update():void
+Close_Complaint():void
+List_Complaints():void
+Search_Compliants():void

Employees Class

Code

```
class Employees
{
    string PF_No;
    string Employee_Name;
    string Father_Name;
    string Badge_No;
    string Pay_scale;
    int Basic_Pay;
    string Designation;
    DateTime Present_Cadre_Promoted_Date;
    DateTime Date_joining_of_Station;
    string Joining_Cadre;
    DateTime Date_Of_Joining_Service;
    int No_Teams_Heading;
    int No_Teams_Member;
    int No_Cases_Sloved_In_Service;
    int No_Cases_Sloved_In_Year;
    string List_Of_Awards;
    DateTime Next_Trainig_Due_Date;
    DateTime Next_Periodial_Medical_check_Due_Date;
    public static void Joining_Service()
    {
        //To Do
    }
    public static void Joining_Station()
    {
        //To Do
    }
    public static void Award()
    {
        //To Do
    }
    public static void Remove_Award()
    {
        //To Do
    }
    public static void Promotion()
    {
        //To Do
    }
    public static void Suspension()
    {
        //To Do
    }
    public static void Revoke()
    {
        //To Do
    }
    public static void Enquire()
    {
        //To Do
    }
    public static void Transfer()
    {
        //To Do
    }
    public static void Retirement()
    {

```

```

    //To Do
}
public static void List_of_Employees()
{
    //To Do
}
public static void Search_Employee()
{
    //To Do
}
}

```

UML Diagram

Employees
+PF_No:string
+Employee_Name:string
+Father_Name:string
+Badge_No:string
+Pay_scale:string
+Basic_Pay:int
+Designation:string
+Present_Cadre_Promoted_Date:DateTime
+Date_joining_of_Station:DateTime
+Joining_Cadre:string
+Date_Of_Joining_Service:DateTime
+No_Teams_Heading:int
+No_Teams_Member:int
+No_Cases_Sloved_In_Service:int
+No_Cases_Sloved_In_Year:int
+List_Of_Awards:string
+Next_Trainig_Due_Date:DateTime
+Next_Periodial_Medical_check_Due_Date:DateTime
+Joining_Service():void
+Joining_Station():void
+Award():void
+Remove_Award():void
+Promotion():void
+Suspension():void
+Revoke():void
+Enquire():void
+Transfer():void
+Retirement():void
+List_of_Employees():void
+Search_Employee():void

Teams Class

Code

```
class Teams
{
    string Team_No;
    DateTime Date_Of_Inception;
    string Authotity_Letter_No;
    DateTime Authotity_Letter_Date;
    string Type_of_Team;
    DateTime Due_Date;
    string Team_head;
    string Team_Members_List;
    int No_of_report_Submitted;
    bool Final_Report_Submitted;
    public static void Team_Forming()
    {
        //To Do
    }
    public static void Add_Team_Member()
    {
        //To Do
    }
    public static void Close_Team()
    {
        //To Do
    }
    public static void Listing_Of_Teams()
    {
        //To Do
    }
    public static void Search_Team()
    {
        //To Do
    }
}
```

UML Diagram

	Teams	
	+Team_No:string	
	+Date_Of_Inception:DateTime	
	+Authotity_Letter_No:string	
	+Authotity_Letter_Date:DateTime	
	+Type_of_Team:string	
	+ Due_Date:DateTime	
	+Team_head:string	
	+Team_Members_List:string	
	+No_of_report_Submitted:int	
	+Final_Report_Submitted:bool	
	+Team_Forming():void	
	+Add_Team_Member():void	
	+Close_Team():void	
	+Listing_Of_Teams():void	
	+Search_Team():void	

Team Complaint Class

Code

```
class Team_Complaint
{
    string Team_No;
    string Complaint_No;
    string Crime_id;
    DateTime Assign_Date;
    DateTime Due_date;
    int No_Renewals;
    DateTime Closing_Date;

    public static void Assign_Case()
    {
        //To Do
    }
    public static void Transfer_Case()
    {
        //To Do
    }
    public static void Close_Case()
    {
        //To Do
    }
    public static void Listing_Cases()
    {
        //To Do
    }
    public static void Search_Case()
    {
        //To Do
    }
}
```

UML Diagram

Team_Complaint
+Team_No:string
+Complaint_No:string
+Crime_id:string
+Assign_Date:DateTime
+Due_date:DateTime
+No_Renewals:int
+Closing_Date:DateTime
+Assign_Case():void
+Transfer_Case():void
+Close_Case():void
+Listing_Cases():void
+Search_Case():void

Reports Class

Code

```
class Reports
{
    string Report_id;
    DateTime Report_Filling_date;
    string Report_Type;
    string Report_Submitted_By;
    bool Report_Accepted;
    string Report_Accepting_Authority;
    string Report_Scan_File_Name;
    public static void Receive_Report()
    {
        //To Do
    }
    public static void Submit_Report_For_Acceptance()
    {
        //To Do
    }
    public static void Scan_And_File_Report()
    {
        //To Do
    }
    public static void Submit_Report_Court()
    {
        //To Do
    }
    public static void Revoke_Report()
    {
        //To Do
    }
    public static void Search_Report()
    {
        //To Do
    }
}
```

UML Diagram

Reports
+Report_id:string
+Report_Filling_date:DateTime
+Report_Type:string
+Report_Submitted_By:string
+Report_Accepted:bool
+Report_Accepting_Authority:string
+Report_Scan_File_Name:string
+Receive_Report():void
+Submit_Report_For_Acceptance():void
+Scan_And_File_Report():void
+Submit_Report_Court():void
+Revoke_Report():void
+Search_Report():void

Court Case Class

Code

```
class Court_Case
{
    string Case_No;
    DateTime Case_Filling_date;
    string Complainant_List;
    string Accused_List;
    string Case_IPC_Sec_List;
    string Case_Final_IPC_Sec_List;
    DateTime Court_case_Filing_Date;
    string Public_Prosecutor_Name;
    string Council_of_Lawyers_List;
    DateTime First_Listing_Date;
    DateTime First_Hearing_Date;
    int No_Listings;
    int No_Hearings;
    string Judgement_No;
    DateTime Judgement_dt;
    string Judgement;
    DateTime Appeal_Due_Date;

    public static void File_Case()
    {
        //To Do
    }
    public static void Request_for_Hearing()
    {
        //To Do
    }
    public static void Hearing()
    {
        //To Do
    }
    public static void Judgement()
    {
        //To Do
    }
    public static void Appeal()
    {
```

```

//To Do
}
public static void Update_Compliant()
{
//To Do
}
}

```

UML Diagram

Court_Case
+Case_No:string
+Case_Filling_date:DateTime
+Complainant_List:string
+Accused_List:string
+Case_IPC_Sec_List:string
+Case_Final_IPC_Sec_List:string
+Court_case_Filing_Date:DateTime
+Public_Prosecutor_Name:string
+Council_of_Lawyers_List:string
+First_Listing_Date:DateTime
+First_Hearing_Date:DateTime
+No_Listings:int
+No_Hearings:int
+Judgement_No:string
+Judgement_dt:DateTime
+Judgement:string
+Appeal_Due_Date:DateTime
+File_Case():void
+Request_for_Hearing():void
+Hearing():void
+Judgement():void
+Appeal():void
+Update_Compliant():void