**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** |
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| **Product Class** |
| **Code** |
| 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;  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 | |

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| **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\_Deacticity()  {  //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  }  } |

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| **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\_Deacticity():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 | |

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| **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 | |

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| **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** | | +Cart\_Id:string | | +Date:DateTime | | +No\_of\_items:int | | +Amount:float | | +Banker\_discount:float | | +Payment\_type:string | | +Payment\_Mode:string | | +Order():void | |

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| **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 | |

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| **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** |
| |  | | --- | | **Check\_out** | | +Invoice\_Id:string | | +Invoice\_Date:DateTime | | +Customer\_id:string | | +Cart\_id:string | | +Payment\_Type:string | | +Payment\_Status:string | | +Invoice():void | | +Payment():void | | +Payment\_Status():void | |

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| **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  }  } |

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| **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 | |

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| **Hospital management system** |
| **Classes** |
| **Patient** |
| **Visiting** |
| **Doctor** |
| **Diagnosis\_Testing** |
| **Pharmacy** |
| **Pharmacy\_Billing** |
| **In\_Patient** |
| **In\_Patinent\_Doctor\_Visting** |
| **Ward** |
| **In\_Patient\_Billing** |
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| **Patient Class** |
| **Code** |
| 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\_Dieases;  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()  {  //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 | |

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| **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  }  } |

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| **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 | |

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| **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  }  } |

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| **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 | |

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| **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  }  } |

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| **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 | |

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| **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 | | +Medicine\_id:string | | +Medicine\_Name:string | | +Manufacture :string | | +Production\_Batch\_No:string | | +Manufacture\_Date:DateTime | | +Expire\_date:DateTime | | +Stock\_available:int | | +Indent():void | | +Add\_Stock():void | | +Sale():void | | +Tranfer\_Stock():void | | +Returns():void | |

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| **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\_Prescrption()  {  //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\_Prescrption():void | | +Supply\_Medicine():void | | +Billing():void | | +Cancel\_Bill():void | | +Payment():void | | +Returns():void | |

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| **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 | |

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| **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  }  } |

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| **UML Diagram** |
| |  | | --- | | In\_Patinent\_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 | |

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| **Police Station System** |
| **Classes** |
| **Citizan** |
| **Complaint** |
| **Crime** |
| **Employees** |
| **Teams** |
| **Team\_ Complaint** |
| **Reports** |
| **Court\_Case** |
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| **Citizan Class** |
| **Code** |
| class Citizan  {  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  }  } |

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| **UML Diagram** |
| |  | | --- | | Citizan | | +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 | |

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| **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  }  } |

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| **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 | |

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| **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 | |

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| **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 | |