**Database Design ERD and Data Dictionary**

**ERD**

**Data Dictionary**

**WARD**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **WardID** | **Yes** | **Auto Number** | **2** | **Primary Key**  **1 – 99 inclusive** |
| **WardName** | **Yes** | **Text** | **10** | **-** |
| **WardLocation** | **Yes** | **Text** | **8** | **-** |
| **WardCapacity** | **Yes** | **Number** | **2** | **1 – 20 inclusive** |

**PATIENT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **PatientID** | **Yes** | **Auto Number** | **6** | **Primary Key**  **1 - 99999999 inclusive** |
| **LastName** | **Yes** | **Text** | **25** | **-** |
| **FirstName** | **Yes** | **Text** | **25** | **-** |
| **StreetAddress** | **Yes** | **Text** | **50** | **-** |
| **Suburb** | **Yes** | **Text** | **20** | **-** |
| **City** | **Yes** | **Text** | **20** | **-** |
| **EmailAddress** | **Yes** | **Text** | **30** | **-** |
| **PhoneNumber** | **No** | **Number** | **15** | **-** |
| **InsuranceCode** | **Yes** | **Text** | **15** | **-** |

**DOCTOR**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **DoctorID** | **Yes** | **Auto Number** | **6** | **Primary Key** |
| **LastName** | **Yes** | **Text** | **25** | **-** |
| **FirstName** | **Yes** | **Text** | **25** | **-** |
| **StreetAddress** | **Yes** | **Text** | **50** | **-** |
| **Suburb** | **Yes** | **Text** | **20** | **-** |
| **City** | **Yes** | **Text** | **20** | **-** |
| **PhoneNumber** | **Yes** | **Number** | **15** | **-** |
| **Specialty** | **Yes** | **Text** | **15** | **-** |
| **Salary** | **Yes** | **Number** | **6** | **20,000.00 - 200,000.00 inclusive** |

**RESEARCH TOPIC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **ResearchTopicID** | **Yes** | **Auto Number** | **6** | **Primary Key**  **1 – 999 inclusive** |
| **Description** | **Yes** | **Text** | **100** | **-** |
| **ResearchLevel** | **Yes** | **Number** | **2** | **1 – 10 inclusive** |

**MEDICATION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **MedicationID** | **Yes** | **Auto Number** | **6** | **Primary Key**  **1 – 999999 inclusive** |
| **MedicationName** | **Yes** | **Text** | **25** | **-** |
| **MedicationCost** | **Yes** | **Currency** | **7** | **0.50 – 9999.00 inclusive** |

**ADMISSION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **AdmissionID** | **Yes** | **Auto Number** | **8** | **Primary Key**  **1 – 99999999 inclusive** |
| **Description** | **Yes** | **Text** | **100** | **-** |
| **AdmissionDate** | **Yes** | **Date** | **10** | **Format: DD/MM/YYYY** |
| **PatientID** | **Yes** | **Foreign Key (PATIENT)** | **6** | **-** |
| **WardID** | **Yes** | **Foreign Key (WARD)** | **6** | **-** |
| **AdmissionStatus** | **Yes** | **Text** | **8** | **Current, Complete** |

**ALLOCATION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **AdmissionID** | **Yes** | **Foreign Key (ADMISSION)** | **6** | **Primary Key** |
| **DoctorID** | **Yes** | **Foreign Key (DOCTOR)** | **8** | **Primary Key** |
| **DoctorFee** | **Yes** | **Currency** | **6** | **10.00 – 500.00 inclusive** |
| **Role** | **Yes** | **Text** | **9** | **Primary, Secondary** |

**PRESCRIPTION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **MedicationID** | **Yes** | **Foreign Key (MEDICATION)** | **6** | **Primary Key** |
| **AdmissionID** | **Yes** | **Foreign Key (ADMISSION)** | **6** | **Primary Key** |
| **PrescriptionDate** | **Yes** | **Date** | **10** | **Format: DD/MM/YYYY (Today’s Date)** |
| **PrescriptionAmount** | **Yes** | **Number** | **8** | **1 – 150 inclusive** |

**RESEARCH PROJECT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **ResearchProjectID** | **Yes** | **Auto Number** | **6** | **Primary Key** |
| **ResearchTopicID** | **Yes** | **Foreign Key (RESEARCH TOPIC)** | **6** | **-** |
| **DoctorID** | **Yes** | **Foreign Key (DOCTOR)** | **6** | **-** |
| **DoctorName** | **Yes** | **Text** | **50** | **-** |
| **ProjectOutcome** | **Yes** | **Text** | **25** | **journal article, conference paper, conference poster, book chapter, and book** |
| **EndDate** | **Yes** | **Date** | **10** | **Format: DD/MM/YYYY** |
| **Budget** | **Yes** | **Currency** | **8** | **2000.00 – 1000000.00 inclusive** |

**PAYMENT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Data Type** | **Maximum Length** | **Range/List** |
| **PaymentCode** | **Yes** | **Auto Number** | **6** | **Primary Key**  **1 – 99999999 inclusive** |
| **AdmissionID** | **Yes** | **Foreign Key (ADMISSION)** | **6** |  |
| **Amount** | **Yes** | **Currency** | **10** |  |
| **PaymentDate** | **Yes** | **Date** | **10** | **Format: DD/MM/YYYY** |