Assignment 2

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1.WARD:

Wards in the Well Meadows Hospital.

Ward (WardNumber, WardName, Location, TotalNoOfBeds, TelephoneExtension)

* Primary Key: WardNumber
* Alternate Key: TelephoneExtension

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | COLUMN | NULL/NOT NULL | KEY |
| Ward | WardNumber | NOT NULL | PRIMARY KEY |
| Ward | WardName | NOT NULL | NONE |
| Ward | Location | NOT NULL | NONE |
| Ward | TotalNoOfBeds | NOT NULL | NONE |
| Ward | TelephoneExtension | NOT NULL | ALTERNATE KEY |

2.Staff:

Information regarding the staff working at the hospital including their qualification, work experience and contract type. Staff records includes basic identification information, Staff Qualifications contains Qualification type, date and their Institution name. Work experience contains their previous work position, start and end date and their work organization. Contract includes staff contract type, pay and hours worked per week.

Staff (StaffNumber, StaffFirstName, StaffLastName, Address, Sex, TelephoneNo, BirthDate, NIN, Positon, CurrentSalary, SalaryScale, ContractHoursPerWeek, ContractType, ContractPayType, QualifiactionType, QualificationDate, QualificationInstitutionName, WorkExperiencePosition,

WorkStartDate, WorkEndDate, WorkOrganization)

* Primary Key: StaffNumber
* Alternate Key: NIN

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table | COLUMN | | NOT NULL/NULL | KEY |
| Staff | StaffNumber | | NOT NULL | PRIMARY KEY |
| Staff | StaffFirstName | | NOT NULL | NONE |
| Staff | StaffLastName | | NOT NULL | NONE |
| Staff | Address | | NOT NULL | NONE |
| Staff | Sex | | NOT NULL | NONE |
| Staff | TelephoneNo | | NOT NULL | NONE |
| Staff | BirthDate | | NOT NULL | NONE |
| Staff | | NIN | NOTNULL | ALTERNATE KEY | |
| Staff | | Position | NOT NULL | NONE | |
| Staff | | CurrentSalary | NOT NULL | NONE | |
| Staff | | SalaryScale | NOT NULL | NONE | |
| Staff | | ContractType | NOT NULL | NONE | |
| Staff | | ContractPayType | NOT NULL | NONE | |
| Staff | | ContractHoursPerWeek | NOT NULL | NONE | |
| Staff | | QualificationDate | NOT NULL | NONE | |
| Staff | | QualificationType | NOT NULL | NONE | |
| Staff | | QualificationInstitutionName | NOT NULL | NONE | |
| Staff | | WorkExperiencePosition | NOT NULL | NONE | |
| Staff | | WorkEndDate | NOT NULL | NONE | |
| Staff | | WorkStartDate | NOT NULL | NONE | |
| Staff | | WorkExperinceOrganization | NOT NULL | NONE | |

3.WardStaffAllocation.

The Charge Nurse allocates shifts for hospital personnel.

StaffAllocation (StaffNumber, WardNumber, Shift, WardName, Location, Charge Nurse, TelephoneExtension)

* Foreign Key: StaffNumber, WardNumber.
* Alternate Key: TelephoneExtension.

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| StaffAllocation | StaffNumber | NOT NULL | FOREIGN KEY |
| StaffAllocation | WardNumber | NOT NULL | FOREIGN KEY |
| StaffAllocation | Shift | NOT NULL | NONE |
| StaffAllocation | WardName | NOT NULL | NONE |
| StaffAllocation | Location | NOT NULL | NONE |
| StaffAllocation | Charge Nurse | NOT NULL | NONE |
| StaffAllocation | TelephoneExtension | NOT NULL | ALTERNATE KEY |

4. Patient:

Patients admitted to the Well Meadows Hospital and their personal information, including their next of kin’s details.

Patient (PatientNumber, PatientFirstName, PatientLastName, Address, PhoneNumber, BirthDate, Sex, MaritalStatus, RegistrationDate, KinName, KinRelationToPatient, KinAddress, KinPhoneNumber)

* Primary Key: PatientNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Patient | PatientNumber | NOT NULL | PRIMARY KEY |
| Patient | PatientFirstName | NOT NULL | NONE |
| Patient | PatientLastName | NOT NULL | NONE |
| Patient | Address | NOT NULL | NONE |
| Patient | PhoneNumber | NOT NULL | NONE |
| Patient | BirthDate | NOT NULL | NONE |
| Patient | Sex | NOT NULL | NONE |
| Patient | MaritalStatus | NOT NULL | NONE |
| Patient | RegistrationDate | NOT NULL | NONE |
| Patient | KinName | NOT NULL | NONE |
| Patient | KinRelationToPatient | NOT NULL | NONE |
| Patient | KinAddress | NOT NULL | NONE |
| Patient | KinPhoneNumber | NOT NULL | NONE |

5.Local Doctors:

Information regarding the local doctors referring patients to the Well Meadow Hospital.

Local Doctors (LocalDoctorFullName, ClinicNumber, ClinicAddress, ClinicPhoneNumber)

* Primary Key: ClinicNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Local Doctors | ClinicNumber | NOT NULL | PRIMARY KEY |
| Local Doctors | LocalDoctorFullName | NOT NULL | NONE |
| Local Doctors | ClinicAddress | NOT NULL | NONE |
| Local Doctors | ClinicPhoneNumber | NOT NULL | NONE |

6.Patient Appointment:

Information regarding the patients’ appointments set up by the local doctors that refer them.

Patient Appointment (AppointmentNumber, PatientNumber, StaffNumber, AppointmentDate, AppointmentTime, ExaminationRoom)

* Primary Key: AppointmentNumber
* Foreign Key: StaffNumber, PatientNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Patient Appointment | AppointmentNumber | NOT NULL | PRIMARY KEY |
| Patient Appointment | PatientNumber | NOT NULL | FOREIGN KEY |
| Patient Appointment | StaffNumber | NOT NULL | FOREIGN KEY |
| Patient Appointment | AppointmentDate | NOT NULL | NONE |
| Patient Appointment | AppointmentTime | NOT NULL | NONE |
| Patient Appointment | ExaminationRoom | NOT NULL | NONE |

7.Outpatient:

Information regarding patients visiting the Outpatient clinic.

Outpatient (PatientNumber, AppointmentDate, AppointmentTime

* Foreign Key: PatientNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Outpatient | PatientNumber | NOT NULL | FOREIGN KEY |
| Outpatient | AppointmentDate | NOT NULL | NONE |
| Outpatient | AppointmentTime | NOT NULL | NONE |

8.Inpatients:

Information regarding patients referred to the inpatient clinic.

Inpatient (PatientNumber, WaitingListDate, WardRequired, ExpectedDurationOfStay, WardPlacementDate, WardExpectedLeaveDate, WardActualLeaveDay)

* Primary Key: BedNumber
* Foreign Key: PatientNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Inpatient | BedNumber | NOT NULL | PRIMARY KEY |
| Inpatient | PatientNumber | NOT NULL | FOREIGN KEY |
| Inpatient | WaitinglistDate | NOT NULL | NONE |
| Inpatient | WardRequired | NOT NULL | NONE |
| Inpatient | ExpectedDurationOfStay | NOT NULL | NONE |
| Inpatient | WardPlacementDate | NOT NULL | NONE |
| Inpatient | WardExpectedLeaveDate | NOT NULL | NONE |
| Inpatient | WardActualLeaveDay | NOT NULL | NONE |

9. Patient Medication:

Prescription medication prescribed to the patient.

Patient Medication (PatientNumber, DrugNumber, UnitsPerday, AdministrationMethod, StartDate, EndDate)

* Foreign Key: PatientNumber, DrugNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Patient Medication | PatientNumber | NOT NULL | FOREIGN KEY |
| Patient Medication | DrugNumber | NOT NULL | FOREIGN KEY |
| Patient Medication | UnitsPerDay | NOT NULL | NONE |
| Patient Medication | AdministrationMethod | NOT NULL | NONE |
| Patient Medication | StartDate | NOT NULL | NONE |
| Patient Medication | EndDate | NOT NULL | NONE |

10.Surgical and Non-Surgical Supplies:

Information regarding Surgical and Non-Surgical supply stock maintained by the Wells Meadow Hospital.

Surgical and Non-Surgical Supplies (ItemNumber, ItemName, ItemDespcription, StockQuantity, ReorderLevel, CostPerUnit)

* Primary Key: ItemNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Surgical and Non-Surgical Supplies | ItemNumber | NOT NULL | PRIMARY KEY |
| Surgical and Non-Surgical Supplies | ItemName | NOT NULL | NONE |
| Surgical and Non-Surgical Supplies | ItemDescrition | NOT NULL | NONE |
| Surgical and Non-Surgical Supplies | StockQuantity | NOT NULL | NONE |
| Surgical and Non-Surgical Supplies | ReorderLevel | NOT NULL | NONE |
| Surgical and Non-Surgical Supplies | CostPerUnit | NOT NULL | NONE |

11. Pharmaceutical Supplies:

Information regarding Pharmaceutical Supply stock maintained by Wells Meadow Hospital.

Pharmaceutical Supplies (DrugName, DrugNumber, DrugType, DrugDescription, DrugDosage, AdministrationMethod, PharmStockQuantity, PharmReorderLevel, PharmCostPerUnit)

* Primary Key: DrugNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Pharmaceutical Supplies | DrugNumber | NOT NULL | PRIMARY KEY |
| Pharmaceutical Supplies | DrugName | NOT NULL | NONE |
| Pharmaceutical Supplies | DrugDescription | NOT NULL | NONE |
| Pharmaceutical Supplies: | DrugDosage | NOT NULL | NONE |
| Pharmaceutical Supplies | AdministrationMethod | NOT NULL | NONE |
| Pharmaceutical Supplies | StockQuantity | NOT NULL | NONE |
| Pharmaceutical Supplies | ReorderLevel | NOT NULL | NONE |
| Pharmaceutical Supplies | CostPerUnit | NOT NULL | NONE |
| Pharmaceutical Supplies | DrugType | NOT NULL | NONE |

12. Ward Requisites:

Information regarding ordering of the hospital supplies using the ward requisition form.

Ward Requisite (RequisitionNumber, RequisitionName, WardNumber, WardName, RequisitionedBy, RequisitionDate, DrugName, DrugDescription, DrugDosage, AdminsitrationMethod, CostperUnit, QuantityRequired, OrderDate, Drug/ItemNumber)

* Primary Key: RequisitionNumber
* Foreign Key: WardNumber, Drug/ItemNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Ward Requisites | RequisitionNumber | NOT NULL | PRIMARY KEY |
| Ward Requisites | RequisitionName | NOT NULL | NONE |
| Ward Requisites | WardName | NOT NULL | NONE |
| Ward Requisites | RequisitionedBy | NOT NULL | NONE |
| Ward Requisites | RequisitionDate | NOT NULL | NONE |
| Ward Requisites | DrugName | NOT NULL | NONE |
| Ward Requisites | DrugDescription | NOT NULL | NONE |
| Ward Requisites | DrugDosage | NOT NULL | NONE |
| Ward Requisite | AdminsitrationMethod | NOT NULL | NONE |
| Ward Requisite | CostperUnit | NOT NULL | NONE |
| Ward Requisite | QuantityRequired | NOT NULL | NONE |
| Ward Requisite | OrderDate | NOT NULL | NONE |
| Ward Requisite | WardNumber | NOT NULL | FOREIGN KEY |
| Ward Requisite | Drug/ItemNumber | NOT NULL | FOREIGN KEY |

13.Suppliers:

Information of the suppliers that supply goods to Wells Meadow Hospital.

Suppliers (SupplierName, SupplierNumber, SupplierAddress, SupplierPhoneNumber, Supplier FaxNumber)

* Primary Key: SupplierNumber

|  |  |  |  |
| --- | --- | --- | --- |
| Table | COLUMN | NULL/NOT NULL | KEY |
| Suppliers | SupplierNumber | NOT NULL | PRIMARY KEY |
| Suppliers | SupplierName | NOT NULL | NONE |
| Suppliers | SupplierAddress | NOT NULL | NONE |
| Suppliers | SupplierPhoneNumber | NOT NULL | NONE |
| Suppliers | SupplierFaxNumber | NOT NULL | NONE |

RELATIONSHIPS:

|  |  |  |
| --- | --- | --- |
| PARENT ENTITY | CHILD ENTITY | CARDINALITY |
| StaffMembers | WardStaffAllocation | 1:N |
| StaffMembers | Patient Appointment | 1:N |
| Wards | StaffAllocation | 1:N |
| Wards | Ward Requisites | 1:N |
| Patient | Patient Medication | 1:N |
| Patient | Local Doctors | N:1 |
| Patient | Inpatient | N:1 |
| Patient | Outpatient | N:1 |
| PharmaceuticalSupplies | Ward Requisites | 1:N |
| PharmaceuticalSupplies | Medication | N:M |
| PharmaceuticalSupplies | Suppliers | N:1 |
| Surgical and Non-Surgical Supplies | Ward Requisites | 1:N |
| Surgical and Non-Surgical Supplies | Suppliers | N:1 |
|  |  |  |

* Each Staff Member has multiple Staff Allocations.
* Each StaffAllocation belongs to one Staff Member.
* Each StaffMembers holds multiple PatientAppointments.
* Each PatientAppointment belongs to one StaffMembers.
* Each Ward has multiple Staff Allocations.
* Each member in the StaffAllocation belongs to one Ward.
* Each Ward has multiple Ward Requisites.
* Each Ward Requisite belongs to one Ward.
* Each Patient has multiple Patient Medication.
* Each Patient Medication prescription belongs to one Patients.
* Each Patient has one Local Doctor referring them to the Well Meadow Hospital.
* Each Local Doctor refers many patients to the Well Meadow Hospital.
* A single Patient attends the InPatient clinic.
* The Inpatient Clinic has multiple Patients.
* A single Patient attends the OutPatient clinic.
* The Outpatient Clinic has multiple Patients.
* Multiple PharmaceuticalSupplies are listed in the Ward Requisites.
* Each Ward Requisite is written for individual PharmaceuticalSupplies.
* Multiple Surgical and Non-Surgical Supplies are listed in the Ward Requisites.
* Each Ward Requisite is written for individual Surgical and Non-Surgical Supplies.
* Pharmaceutical Supplies includes many Patient Medication.
* Patient Medication may include multiple PharmaceuticalSupplies.
* Each PharmaceuticalSupplies is supplied by one supplier.
* Each Supplier supplies multiple PharmaceuticalSupplies.
* Each Surgical and Non-Surgical Supplies is supplied by one supplier.
* Each Supplier supplies multiple Surgical and Non-Surgical Supplies.