Data Warehouse Design

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# Diagram, engineering drawing Description automatically generatedNorthern Hospital Database ERD

# Northern Hospital Database Data Dictionary

**Measurement Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_v9AxTN6AUBgEawkK.html#4DAxTN6AUBgEawkM) |  | int |  | PK |  | No |  | The id number related to each measurement |
|  | [MeasurementName](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_v9AxTN6AUBgEawkK.html#UDAxTN6AUBgEawkN) |  | nvarchar(50) |  | Unique |  | No |  | The name of the measurement to be taken |
|  | [Frequency](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_v9AxTN6AUBgEawkK.html#0DAxTN6AUBgEawkO) |  | int |  |  |  | No |  | How frequently the measurement is to be taken in days |

**Table description**: this table holds the list of measurements to be taken from the patients and the frequency at which it is to be taken.

**DataPoint Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#8DAxTN6AUBgEawkQ) |  | int |  | Comp PK / FK references Measurement |  | No |  | Unique Measurement for the patient relating to their symptoms, care QoL etc |
|  | [DataPointNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#8DAxTN6AUBgEawkR) |  | int |  | Comp PK |  | No |  | Each measurement has either one or many data points associated with it |
|  | [UpperLimit](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#CDAxTN6AUBgEawkS) |  | int |  |  |  | No |  | Max reportable value |
|  | [LowerLimit](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#CDAxTN6AUBgEawkT) |  | int |  |  |  | No |  | Min reportable value |
|  | [Name](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#iDAxTN6AUBgEawkU) |  | nvarchar(50) |  |  |  | Yes |  | Name of the datapoint |

**Table description**: this table holds the default upper and lower limits for each datapoint that can be taken.

**SurveyQuestion Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_iDAxTN6AUBgEawkV.html#SDAxTN6AUBgEawkW) |  | int |  | Comp PK / FK references DataPoint |  | No |  | Unique Measurement for the patient relating to their symptoms, care QoL etc |
|  | [DataPointNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_iDAxTN6AUBgEawkV.html#SDAxTN6AUBgEawkX) |  | int |  | Comp PK / FK references DataPoint |  | No |  | Each measurement has either one or many data points associated with it |
|  | [CategoryName](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_iDAxTN6AUBgEawkV.html#yDAxTN6AUBgEawkY) |  | nvarchar(255) |  |  |  | Yes |  | The category to which the question relates |
|  | [Question](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_iDAxTN6AUBgEawkV.html#yDAxTN6AUBgEawkZ) |  | nvarchar(255) |  |  |  | No |  | The actual question relating to the measurement |

**Table description**: each measurement may have one or many data points associated with it and each data point has a survey question associated with it.

Each measurement may have one or many data points associated with it and each data point has a survey question associated with it

**SurveyAnswer Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_KDAxTN6AUBgEawka.html#KDAxTN6AUBgEawkb) |  | int |  | Comp PK / FK references SurveyQuestion |  | No |  | Unique Measurement for the patient relating to their symptoms, care QoL etc |
|  | [DataPointNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_KDAxTN6AUBgEawka.html#qDAxTN6AUBgEawkc) |  | int |  | Comp PK / FK references SurveyQuestion |  | No |  | Each measurement has either one or many data points associated with it |
|  | [AnswerNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_KDAxTN6AUBgEawka.html#aDAxTN6AUBgEawkd) |  | int |  | Comp PK |  | No |  | Id number of the answer |
|  | [AnswerText](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_KDAxTN6AUBgEawka.html#6DAxTN6AUBgEawke) |  | nvarchar(255) |  |  |  | No |  | The input form the patient |
|  | [Value](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_KDAxTN6AUBgEawka.html#GDAxTN6AUBgEawkf) |  | int |  |  |  | No |  | Numeral answer value |

**Table description**: records answers to a survey questions.

2 types of measurements are taken from the patients – measurements and surveysEach measurement may have one or many data points associated with it and each data point has a survey question associated with it – each question can have zero or many answers

**StaffRole Table**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |  |
|  | [RoleID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_GDAxTN6AUBgEawkg.html#mDAxTN6AUBgEawkh) |  | int |  | PK |  | No |  | A unique integer to represent staff roles. |  |
|  | [StaffType](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_GDAxTN6AUBgEawkg.html#WDAxTN6AUBgEawki) |  | nvarchar(50) |  | Unique |  | No |  | Reflect the staff’s role, e.g. admin/clinician |  |

**Table description**: each entry in this table represents a unique role within the hospital with an assigned id to the given role.

**Staff Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [StaffID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#2DAxTN6AUBgEawkk) |  | int |  | PK |  | No |  | A unique Id to identify a staff e.g. 12212 |
|  | [Email](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#2DAxTN6AUBgEawkl) |  | nvarchar(256) |  | Unique |  | No |  | Staff email address e.g. James@gmail.com |
|  | [FirstName](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#ODAxTN6AUBgEawkm) |  | nvarchar(50) |  |  |  | No |  | Staff’s first name |
|  | [Surname](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#ODAxTN6AUBgEawkn) |  | nvarchar(50) |  |  |  | No |  | Staff’s surname |
|  | [Password](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#uDAxTN6AUBgEawko) |  | binary(64) |  |  |  | No |  | Hash-byte function for storing hashed staff member password in DB |
|  | [Salt](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#uDAxTN6AUBgEawkp) |  | nvarchar(255) |  |  |  | No |  | Refers to something unique added  (e.g., Rand function or the time, hour, minute, second values to generate a seed value pool) in addition to the hash to encrypt or make it harder to decrypt data |
|  | [RoleID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#xjAxTN6AUBgEawmC) |  | int |  | FK references StaffRole |  | No |  | Unique Id for the staff role referencing StaffRole table |

**Table description**: each entry in this table represents a staff member detail including their role.

**Patient Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#BDAxTN6AUBgEawks) |  | nvarchar(50) |  | PK |  | No |  | The unique identity of the patient |
|  | [Email](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#hDAxTN6AUBgEawkt) |  | nvarchar(256) |  | Unique |  | No |  | Patient’s email address e.g. James@gmail.com |
|  | [Title](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#hDAxTN6AUBgEawku) |  | nvarchar(50) |  |  |  | No |  | E.g. Ms, Mr, Mrs |
|  | [FirstName](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#RDAxTN6AUBgEawkv) |  | nvarchar(50) |  |  |  | No |  | Patient’s first name |
|  | [SurName](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#RDAxTN6AUBgEawkw) |  | nvarchar(50) |  |  |  | No |  | Patient’s surname |
|  | [Gender](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#RDAxTN6AUBgEawkx) |  | nvarchar(50) |  | CHECK(Gender = ‘Male’ or Gender = ‘Female’ or Gender = ‘Other’) |  | No |  | Patient’s gender e.g. Male, Female, Other |
|  | [DOB](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#xDAxTN6AUBgEawky) |  | datetime |  |  |  | No |  | Patient’s date of birth |
|  | [Address](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#xDAxTN6AUBgEawkz) |  | nvarchar(255) |  |  |  | No |  | Patient’s address |
|  | [Suburb](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#JDAxTN6AUBgEawk0) |  | nvarchar(50) |  |  |  | No |  | Suburb name e.g. Broadmeadows |
|  | [PostCode](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#JDAxTN6AUBgEawk1) |  | nvarchar(4) |  |  |  | No |  | Patient’s postcode e.g. 3060 |
|  | [MobileNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#JDAxTN6AUBgEawk2) |  | nvarchar(10) |  |  |  | Yes |  | Patient’s Mobile number |
|  | [HomeNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#pDAxTN6AUBgEawk3) |  | nvarchar(10) |  |  |  | Yes |  | Patient’s Home number |
|  | [CountryOfBirth](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#pDAxTN6AUBgEawk4) |  | nvarchar(50) |  |  |  | No |  | E.g. Australia |
|  | [PreferredLanguage](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#pDAxTN6AUBgEawk5) |  | nvarchar(50) |  |  |  | No |  | E.g. English |
|  | [Password](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#ZDAxTN6AUBgEawk6) |  | binary(64) |  |  |  | No |  | Hash-byte function for storing hashed patient password in DB |
|  | [Salt](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#ZDAxTN6AUBgEawk7) |  | nvarchar(255) |  |  |  | No |  | Refers to something unique added (e.g., Rand function or the time, hour, minute, second values to generate a seed value pool) in addition to the hash to encrypt or make it harder to decrypt data |
|  | [LivesAlone](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#5DAxTN6AUBgEawk8) |  | bit |  |  |  | No |  | Refers to Patients living arrangements |
|  | [RegisteredBy](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#JjAxTN6AUBgEawmF) |  | int |  | FK references Staff |  | No |  | Refers to the staff id that registered the patient |
|  | [Active](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#FDAxTN6AUBgEawk.) |  | bit |  |  |  | No |  | Denotes whether the patient is active or not |

**Table description**: the details of each individual patient with a unique id URNumber.

**Treating Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [StartDate](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_lDAxTN6AUBgEawlB.html#VDAxTN6AUBgEawlC) |  | datetime |  | Comp PK |  | No |  | The initial beginning of treating |
|  | [EndDate](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_lDAxTN6AUBgEawlB.html#1DAxTN6AUBgEawlD) |  | datetime |  |  |  | Yes |  | End date of treatment is put in place after treatment has finished |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_lDAxTN6AUBgEawlB.html#NDAxTN6AUBgEawlE) |  | nvarchar(50) |  | Comp PK / FK references Patient |  | No |  | A patient’s URNumber that identifies them |
|  | [StaffID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_lDAxTN6AUBgEawlB.html#NDAxTN6AUBgEawlF) |  | int |  | Comp PK / FK references Staff |  | No |  | A staffs Id number that identifies them |

**Table description**: this table connects the patient and the staff by adding a start date when the staff member commences treating the patient.

**RecordCategory Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [RecordCategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_NDAxTN6AUBgEawlG.html#tDAxTN6AUBgEawlH) |  | int |  | PK |  | No |  | Id that uniquely identifies each row |
|  | [Category](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_NDAxTN6AUBgEawlG.html#dDAxTN6AUBgEawlI) |  | nvarchar(50) |  | Unique |  | No |  | Name of the category |

**Table description**: classify the records into different categories such as immunisation, MRI, or resit catheter for example.

**RecordType Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [RecordTypeID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_dDAxTN6AUBgEawlJ.html#9DAxTN6AUBgEawlK) |  | int |  | PK |  | No |  | ID number of the record |
|  | [RecordType](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_dDAxTN6AUBgEawlJ.html#9DAxTN6AUBgEawlL) |  | nvarchar(50) |  | Unique |  | No |  | Name of the record to be taken |
|  | [RecordCategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_dDAxTN6AUBgEawlJ.html#1jAxTN6AUBgEawmO) |  | int |  | FK references RecordCategory |  | No |  | One record category can have multi record types |

**Table description**: further break the records into different types such as MMR

**PatientRecord Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [DateTimeRecorded](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_DDAxTN6AUBgEawlN.html#DDAxTN6AUBgEawlO) |  | datetime |  | Comp PK |  | No |  | The date and time of the input into the system |
|  | [Notes](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_DDAxTN6AUBgEawlN.html#jDAxTN6AUBgEawlP) |  | nvarchar(255) |  |  |  | Yes |  | Notes added by the clinician |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_DDAxTN6AUBgEawlN.html#jDAxTN6AUBgEawlQ) |  | nvarchar(50) |  | Comp PK / FK references Patient |  | No |  | A patient can have multi records |
|  | [RecordTypeID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_DDAxTN6AUBgEawlN.html#TDAxTN6AUBgEawlR) |  | int |  | Comp PK / FK references RecordType |  | No |  | The id number of the type of record for this input |

**Table description**: details about patient’s records with datetime being the unique identifier

**TemplateCategory Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [CategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_zDAxTN6AUBgEawlS.html#zDAxTN6AUBgEawlT) |  | int |  | PK |  | No |  | Id number for the category |
|  | [CategoryName](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_zDAxTN6AUBgEawlS.html#LDAxTN6AUBgEawlU) |  | nvarchar(50) |  | Unique |  | No |  | Name of the category |

**Table description**: this table records categories that a patient can be assigned to.

**PatientCategory Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [CategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_bDAxTN6AUBgEawlV.html#HDAxTN6AUBgEawlW) |  | int |  | Comp PK |  | No |  | Numeric category identifier |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_bDAxTN6AUBgEawlV.html#nDAxTN6AUBgEawlX) |  | nvarchar(50) |  | Comp PK / FK References Patient |  | No |  | Unique identifier of the patient |

**Table description**: this table records patient’s unique ID and category such as asthma, COPD

**ConditionDetails Table**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | | | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [CategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_XDAxTN6AUBgEawlY.html#3DAxTN6AUBgEawlZ) | |  | int | |  | Comp PK / FK References PatientCategory |  | No |  | Numeric category identifier |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_XDAxTN6AUBgEawlY.html#3DAxTN6AUBgEawla) | |  | | nvarchar(50) |  | Comp PK / FK References PatientCategory |  | No |  | Unique identifier of the patient |
|  | [Diagnosis](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_XDAxTN6AUBgEawlY.html#PDAxTN6AUBgEawlb) | |  | | nvarchar(500) |  |  |  | Yes |  | Clinical diagnosis of patient condition |
|  | [ProcedureDate](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_XDAxTN6AUBgEawlY.html#vDAxTN6AUBgEawlc) | |  | | datetime |  |  |  | Yes |  | Date Time of any procedure was completed e.g., indwell pleural catheter drainage |
|  | [NextAppointment](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_XDAxTN6AUBgEawlY.html#vDAxTN6AUBgEawld) | |  | | datetime |  |  |  | Yes |  | Date Time of next scheduled appointment |

**Table description**: details of a patient’s diagnosis, procedure, and next appointment

**PatientMeasurement Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_fDAxTN6AUBgEawle.html#AjAxTN6AUBgEawlf) |  | int |  | Comp PK / FK References Measurement |  | No |  | Unique Measurement for the patient relating to their symptoms, care QoL etc |
|  | [CategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_fDAxTN6AUBgEawle.html#gjAxTN6AUBgEawlg) |  | int |  | Comp PK / FK References PatientCategory |  | No |  | Numeric category identifier |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_fDAxTN6AUBgEawle.html#gjAxTN6AUBgEawlh) |  | nvarchar(50) |  | Comp PK / FK References PatientCategory |  | No |  | Unique identifier of the patient |
|  | [Frequency](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_fDAxTN6AUBgEawle.html#QjAxTN6AUBgEawli) |  | int |  |  |  | No |  | Numeric frequency identifier e.g., 1,7,28 |
|  | [FrequencySetDate](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_fDAxTN6AUBgEawle.html#wjAxTN6AUBgEawlj) |  | datetime |  |  |  | No |  | Current date time for frequency established for patient |

**Table description**: records date/time and measurements taken by patient

**MeasurementRecord Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementRecordID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_IjAxTN6AUBgEawlk.html#ojAxTN6AUBgEawll) |  | int |  | PK |  | No |  | Id number for the specific measurement. |
|  | [DateTimeRecorded](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_IjAxTN6AUBgEawlk.html#ojAxTN6AUBgEawlm) |  | datetime |  | Unique |  | No |  | Specific Date and Time the measurement was taken. |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_IjAxTN6AUBgEawlk.html#vjAxTN6AUBgEawmq) |  | int |  | Unique, FK references PatientMeasurement |  | No |  | Id for the specific measurement taken. |
|  | [CategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_IjAxTN6AUBgEawlk.html#fjAxTN6AUBgEawms) |  | int |  | Unique, FK references PatientMeasurement |  | No |  | The category Id for the measurement. |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_IjAxTN6AUBgEawlk.html#_jAxTN6AUBgEawmu) |  | nvarchar(50) |  | Unique,  FK references PatientMeasurement |  | No |  | The patient’s hospital id number. |

**Table description**: records each individual measurement and the date and time recorded.

**DataPointRecord Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_YjAxTN6AUBgEawlq.html#4jAxTN6AUBgEawlr) |  | int |  | Comp PK / FK references DataPoint |  | No |  | Measurement for the patient relating to their symptoms, care QoL etc |
|  | [DataPointNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_YjAxTN6AUBgEawlq.html#EjAxTN6AUBgEawls) |  | int |  | Comp PK / FK references DataPoint |  | No |  | Numeric Data indicator |
|  | [Value](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_YjAxTN6AUBgEawlq.html#kjAxTN6AUBgEawlt) |  | float(10) |  |  |  | No |  | Numeric measurement value  e.g., 125 |
|  | [MeasurementRecordID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_YjAxTN6AUBgEawlq.html#kjAxTN6AUBgEawlu) |  | int |  | Comp PK / FK references MeasurmentRecord |  | No |  | Unique numeric Measurement Record identifier |

**Table description**: contains measurements, values, and data points

**TemplateMeasurement Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [MeasurementID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_UjAxTN6AUBgEawlv.html#0jAxTN6AUBgEawlw) |  | int |  | Comp PK / FK references Measurement |  | No |  | Unique Measurement for the patient relating to their symptoms, care QoL etc |
|  | [CategoryID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_UjAxTN6AUBgEawlv.html#0jAxTN6AUBgEawlx) |  | int |  | Comp PK / FK references TemplateCategory |  | No |  | Numeric category identifier |

**Table description**: records patient’s certain measurements required for tracking specific conditions they have e.g., asthma, COPD.

# Northern Hospital Data Warehouse ERD

Diagram

Description automatically generated

# Northern Hospital Data Warehouse Data Dictionary

Each measurement may have one or many data points associated with it and each data point has a survey question associated with it

2 types of measurements are taken from the patients – measurements and surveys**Staff Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | DWStaffID |  | int |  | PK |  | No |  | Surrogate key to uniquely identify each row |
|  | [StaffID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#2DAxTN6AUBgEawkk) |  | int |  |  |  | No |  | An Id to identify a staff e.g. 12212 |
|  | [FirstName](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#ODAxTN6AUBgEawkm) |  | nvarchar(50) |  |  |  | No |  | Staff’s first name |
|  | [Surname](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_WDAxTN6AUBgEawkj.html#ODAxTN6AUBgEawkn) |  | nvarchar(50) |  |  |  | No |  | Staff’s surname |
|  | StaffType |  | nvarchar(50) |  |  |  | No |  | Reflect the staff’s role, admin/clinician |

**Table description**: each entry in this table represents a staff member detail including their role.

**Patient Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | DWPatientID |  | int |  | PK |  | No |  | Surrogate key to uniquely identify each row |
|  | DWSourceDB |  | nvarchar(50) |  |  |  | No |  | The database source of the table |
|  | [URNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#BDAxTN6AUBgEawks) |  | nvarchar(50) |  |  |  | No |  | The unique identity of the patient |
|  | [Gender](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#RDAxTN6AUBgEawkx) |  | nvarchar(50) |  |  |  | No |  | Patient’s gender e.g. Male, Female, Other |
|  | [YearOB](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#xDAxTN6AUBgEawky) |  | datetime |  |  |  | No |  | Patient’s date of birth |
|  | [Suburb](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#JDAxTN6AUBgEawk0) |  | nvarchar(50) |  |  |  | No |  | Suburb name e.g. Broadmeadows |
|  | [PostCode](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#JDAxTN6AUBgEawk1) |  | nvarchar(4) |  |  |  | No |  | Patient’s postcode e.g. 3060 |
|  | [CountryOfBirth](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#pDAxTN6AUBgEawk4) |  | nvarchar(50) |  |  |  | No |  | E.g. Australia |
|  | [PreferredLanguage](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#pDAxTN6AUBgEawk5) |  | nvarchar(50) |  |  |  | No |  | E.g. English |
|  | [LivesAlone](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#5DAxTN6AUBgEawk8) |  | bit |  |  |  | No |  | Refers to Patients living arrangements |
|  | [Active](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_eDAxTN6AUBgEawkr.html#FDAxTN6AUBgEawk.) |  | bit |  |  |  | No |  | Denotes whether the patient is active or not |
|  | CategoryName |  | nvarchar(50) |  |  |  | No |  | Name of the category of patient’s condition |
|  | Diagnosis |  | nvarchar(500) |  |  |  | No |  | Clinical diagnosis of patient condition |
|  | ProcedureDate |  | datetime |  |  |  | Yes |  | Date Time of any procedure was completed e.g., indwell pleural catheter drainage |

**Table description**: each entry in this table represents a patient’s details.

**Treating Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | [DWTreatingID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_lDAxTN6AUBgEawlB.html#NDAxTN6AUBgEawlF) |  | int |  | PK |  | No |  | Surrogate key to uniquely identify each row |
|  | [DWPatientID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_lDAxTN6AUBgEawlB.html#VDAxTN6AUBgEawlC) |  | int |  |  |  | No |  | Refers to the patient id in the patient table |
|  | DWStaffID |  | int |  |  |  | No |  | Refers to the staff id in the staff table |
|  | StartDWDateID |  | int |  |  |  | No |  | Refers to the date id in DWDate table |
|  | EndDWDateID |  | int |  |  |  | Yes |  | Refers to the date id in DWDate table |
|  | DWSourceDB |  | nvarchar(50) |  |  |  | No |  | The database source of the table |

**Table description**: This table connects the patient and the staff by adding a start date when the staff member commences treating the patient.

**RecordType Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | DWRecordTypeID |  | int |  | PK |  | No |  | Surrogate key to uniquely identify each row |
|  | DWSourceDB |  | nvarchar(50) |  |  |  | No |  | The database source of the table |
|  | [RecordTypeID](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_dDAxTN6AUBgEawlJ.html#9DAxTN6AUBgEawlK) |  | int |  |  |  | No |  | ID number of the record |
|  | [RecordType](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_dDAxTN6AUBgEawlJ.html#9DAxTN6AUBgEawlL) |  | nvarchar(50) |  |  |  | No |  | Type of the record to be taken |
|  | [Category](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_dDAxTN6AUBgEawlJ.html#1jAxTN6AUBgEawmO) |  | nvarchar(50) |  |  |  | No |  | Name of the category of the record |

**Table description**: classify the records into different categories such as immunisation, MRI, or resit catheter for example. Further break the records into different types such as MMR

**PatientRecord Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | DWPatientRecordID |  | int |  | PK |  | No |  | Surrogate key to uniquely identify each row |
|  | DWPatientID |  | int |  |  |  | No |  | Refers to the patient id in Patient table |
|  | DWDateID |  | int |  |  |  | No |  | Refers to the date id in DWDate table |
|  | DWSourceDB |  | nvarchar(50) |  |  |  | No |  | The database source of the table |
|  | [Notes](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_DDAxTN6AUBgEawlN.html#jDAxTN6AUBgEawlP) |  | nvarchar(255) |  |  |  | Yes |  | Notes added by the clinician |

**Table description**: each row represents details about patient’s records.

**DataPoint Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | DWDataPointNumber |  | int |  | PK |  | No |  | Surrogate key to uniquely identify each row |
|  | DWSourceDB |  | nvarchar(50) |  |  |  | No |  | The database source of the table |
|  | [DataPointNumber](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#8DAxTN6AUBgEawkR) |  | int |  |  |  | No |  | Each measurement has either one or many data points associated with it |
|  | MeasurementName |  | Nvarchar(50) |  |  |  | No |  | The name of the measurement to be taken |
|  | [UpperLimit](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#CDAxTN6AUBgEawkS) |  | int |  |  |  | No |  | Max reportable value |
|  | [LowerLimit](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#CDAxTN6AUBgEawkT) |  | int |  |  |  | No |  | Min reportable value |
|  | [Name](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_cDAxTN6AUBgEawkP.html#iDAxTN6AUBgEawkU) |  | nvarchar(50) |  |  |  | Yes |  | Name of the datapoint |
|  | Frequency |  | int |  |  |  | No |  | How frequently the measurement is to be taken in days |

**Table description**: this table holds the default upper and lower limits for each datapoint that can be taken.

**DataPointRecord Table**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  | DWDataPointRecordID |  | int |  | PK |  | No |  | Surrogate key to uniquely identify each row |
|  | DWPatientID |  | int |  |  |  | No |  | Refers to the patient id in Patient table |
|  | DWDataPointNumber |  | int |  |  |  | No |  | Refers to the data point id in DataPoint table |
|  | DWDateID |  | int |  |  |  | No |  | Refers to the date id in DWDate table |
|  | DWSourceDb |  | Nvarchar(50) |  |  |  | No |  | The database source of the table |
|  | TimeRecorded |  | Time |  |  |  | No |  | Specific Date and Time the measurement was taken. |
|  | [Value](file:///C:\Users\Cooler%20Master\Documents\VPProjects\content\DBTable_YjAxTN6AUBgEawlq.html#kjAxTN6AUBgEawlt) |  | float(10) |  |  |  | No |  | Numeric measurement value  e.g., 125 |
|  | Frequency |  | int |  |  |  | No |  | Numeric frequency identifier e.g., 1,7,28 |
|  | FrequencySetDate |  | datetime |  |  |  | No |  | Current date time for frequency established for patient |

**Table description**: records patients’ measurements, values, and data points along with the frequency and date of the recorded datapoints.

**DWDate**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Column Name |  | Data Type |  | Constraints |  | Nullable |  | Description |
|  |  |  |  |  |  |  |  |  |  |

**Table description**: contains detailed date values.

# Northern Hospital Data Warehouse Excluded Data Table

\*Note that this source table is based on Northern Health database tables normalised back to 2NF\*

|  |  |  |
| --- | --- | --- |
| Table | Column | Reason For Exclusion |
| Patient | 1. Email 2. FirstName 3. SurName 4. Address 5. MobileNumber 6. HomeNumber | 1. Patient data privacy 2. Irrelevant to data analysis as they do not have impact on trends that can be found by analyzing data |
| 1. Title 2. Password 3. Salt 4. NextAppointment 5. RegisteredBy | Irrelevant to data analysis as they do not have impact on the trends that can be found by analyzing data. They have no analytical value. |
| Staff | 1. Email 2. Password 3. Salt | Irrelevant to data analysis as they do not have impact on the trends that can be found by analyzing data. They have no analytical value. |
| SurveyQuestion | All | Irrelevant to data analysis as they do not have impact on the trends that can be found by analyzing data |
| SurveyAnswer | All | Irrelevant to data analysis as they do not have impact on the trends that can be found by analyzing data |
| TemplateMeasurement | All | Irrelevant to data analysis as they do not have impact on the trends that can be found by analyzing data |
| PatientCategory | All | Irrelevant to data analysis as they do not have impact on the trends that can be found by analyzing data |