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| IT Database Administration – First Year |

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| To: | Bill Cunningham |
| From: | Aaron Leger, Beth Wills, Maher Alhelwani, Jamie Lu, Antoine Asanga |
| Date: | October 3, 2019 |
| Re: | Entity Relationship Diagram |
| Statement of requirement:  Existing System:  Analysis:  Recommend-ation: | * Provide completed process flow diagrams for the three processes, including business inputs, business outputs, and processes. * Make a Data Dictionary for the things named in the process flow diagram. * Using the information from the Data Dictionary, design an ERD that contains all the information from the process flow diagram.   The Atlantic Health Datapalooza and its focus on patient flow, including the processes for discharge, treatment, and triage.  **Information on the existing system from Datapalooza:**  A screenshot of a social media post  Description automatically generated  Person  Triaged Person  Discharge  **TRIAGE**  Facility  Staff  **EMERGENCY ROOM**  Treated Person  Admitted Person  Triaged  **TREATMENT**  Person  Staff  Facility  Discharged Person  Medical Records  Treated  **DISCHARGE**  Person    D A T A D I C T I O N A R Y   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Object Name | Object Type | Datatype | Methods | Notes | | Person | table | N/A | N/A | The scenario dictates a need to track person information. Person must be uniquely identified. | | PersonID | field | INTEGER | PK | Unique identifier assigned to patient by hospital | | PersonFirstName | field | TEXT |  | The client requires tracking of persons’ first names. The length specified for the field is 20 to accommodate typical names. | | PersonLastName | field | TEXT |  | The client requires tracking of persons’ last names. The length specified for the field is 20 to accommodate typical names. | | ArrivalTime | field | TEXT |  | The client requires the time the person arrive to be able to distinguish how long the person waited until the person moved to Triage. Time information will include hours and minutes (HH:MM) | | PersonDateofBirth | field | DATE |  | Data added to help identify the person. Date information provided will include day (DD), month (MM), and year(YYYY) | | Facility | table | N/A | N/A | The scenario requires tracking information about the facilities. | | FacilityID | field | INTEGER | PK | Required to uniquely identify facility | | FacilityAddress | field | TEXT |  | This is used as the data to describe where the specific facility is. | | Staff | table | N/A | N/A | The scenario requires the need to track the staff information. Staff must be uniquely identified. | | StaffID | field | INTEGER | PK | This is used to uniquely identify the Staff. | | StaffFirstName | field | TEXT |  | This is the data used to track the Staffs’ first names. The length of the field is specified to 20 to accommodate typical names. | | StaffLastName | field | TEXT |  | This is the data used to track the Staffs’ last names. The length of the field is specified to 20 to accommodate typical names. | | TriageStaff | Associative table | N/A | N/A | This is an associative table to complement staff’s many to many relationship with Triage. | | TriageID | Field | INTEGER |  | A field in the associative table that references TriageID in the Triage entity. | | StaffID | Field | INTEGER |  | A field in the associative table that references StaffID in the Staff entity. | | TriageFacility | Associative table | N/A | N/A | This is an associative table to complement Facility’s many to many relationship with Triage. | | TriageID | Field | INTEGER | FK | A field in the associative table that references TriageID in the Triage entity. | | FacilityID | Field | INTEGER | FK | A field in the associative table that references TriageID in the Triage entity. | | Triage | Table | N/A |  | The entity to track where the person goes to check in to the emergency room. | | TriageID | Field | INTEGER | PK | A unique identifier for the specific Triage. | | PersonID | Field | INTEGER | FK | A field that references the PersonID in the Person entity. | | PersonStatus | Field | TEXT |  | Data in the triage entity to show the status of the Person and whether or not they proceed to treatment or discharge. | | TriageArrivalTime | field | TIME |  | Complements TriageEndTime and used to track the time the person finished triage to get the duration the person waited. Time information will include hours and minutes (HH:MM) | | TriageEndTime | Field | TIME |  | Complements TriageArrivalTime and used to track the time the person finished triage to get the duration the person waited. Time information will include hours and minutes (HH:MM) | | TriageDate | Field | DATE |  | Used to store information on when the triage occurred. Date information provided will include day (DD), month (MM), and year(YYYY) | | Treatment | Table | N/A | N/A | The entity used to store the treatment process and information from the Triage. | | TreatmentPersonID | Field | INTEGER | PK | Used to uniquely identify the person in treatment. | | TreatmentDate | Field | DATE |  | Used to store information on when the treatment occurred. Date information provided will include day (DD), month (MM), and year(YYYY) | | TreatmentArrivalTime | field | TIME |  | The time treatment started on the specific date must be recorded. Time information will include hours and minutes (HH:MM) | | TreatmentEndTime | field | TIME |  | The time treatment ended on the specific date must be recorded. Time information will include hours and minutes (HH:MM) | | TreatmentPersonStatus | field | TEXT |  | Data in the triage entity to show the status of the Person and whether or not they proceed to being admitted or discharged. | | TreatmentCode | field | TEXT |  | Field used to store data on what kind of treatment was given to the person. | | MedicalHistoryID | Field | INTEGER |  | Field used to store data on what the medical history the person has. It is nullable because person can have no MedicalHistoryID if they are new or have lost their information. | | TriageID | Field | INTEGER | FK | Field that references the TriageID that is being put in the Treatment process. | | StaffTreatment | Associative Table | N/A | N/A | This is an associative table to complement Staff’s many to many relationship with Treatment. Used to store information on the Staff involved in Treatment. | | StaffID | Field | INTEGER | FK | A field in the associative table that references StaffID in the Staff entity. It shows which staff is involved in the treatment. | | TreatmentTreatedPerson | Associative table | N/A | N/A | This is an associative table to complement Treament’s many to many relationship with Treated Person. | | TreatmentPersonID | Field | INTEGER | FK | A field in the associative table that references TreatmentPersonID in the Treatment entity. It shows which Person is getting the treatment. | | TreatedPersonID | Field | INTEGER | FK | A field in the associative table that references TreatedPersonID in the treated Person entity. | | TreatedPerson | Table | N/A | N/A | The scenario dictates a need to track treated person. Treated Person must be uniquely identified. | | TreatedPersonID | Field | INTEGER | PK | Used to uniquely identify the treated person. | | DischargedPerson | Table | N/A | N/A | The scenario dictates a need to track discharged person. Discharged Person must be uniquely identified. | | TreatedPersonID | Field | INTEGER | PK,FK | This is a foreign key from Treated Person to track which treated person is discharged. | | MedicalRecordID | Field | INTEGER |  | This stores the data with regards to the medical record being added to a person’s medical history. | | TriageID | Field | INTEGER | FK | This references the TriageID in the Triage entity. | | AdmittedPerson | Table | N/A | N/A | This scenario dictates a need to track AdmittedPerson. AdmittedPerson must be uniquely identified. | | AdmittedPersonID | Field | INTEGER | PK | This is used to uniquely identify the person admitted. | | TreatmentAdmittedPerson | Table | N/A | N/A | This is an associative table used to complement AdmittedPerson’s many to many relationship with Treatment. | | AdmittedPersonID | Field | INTEGER | FK | This is used to reference the AdmittedPersonID in the AdmittedPerson entity. | | TreatmentPersonID | Field | INTEGER | FK | This is used to reference the TreatmentPersonID in the Treatment entity. |   Please see the requirements above in the statement of requirement. |
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