

GenNex AT HOME SERVICES ENTITY RELATIONSHIP DIAGRAM

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Entity Relationship Diagram

Group 1

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Introduction

GenNex Diagnostics and Devices Ltd, is a diagnostic company with diversified products and service portfolios. We have partnerships with hospitals, insurance companies and hospital networks. We are the pioneers in moving from traditional revenue streams into information services, in healthcare industry.

With the changing customer needs and new government regulation (Obama Care) the healthcare industry is changing vigorously in order to improve Heath Care in Unites States of America. GenNex being a forerunner plans to implement outcome-based fee by changing the traditional Fee-for service payment model. The fee-for-service system of payment for health care services is widely thought to be one of the major culprits in driving up U.S. health care costs. This system not only encourages volume but rewards poor quality and provides little incentive for care coordination. GenNex is partnering with likely and unlikely businesses to step-into new dimension in order to deliver best end-to-end experience to the consumer.

GenNex also volunteers for Bundled Payments for Care Improvement Initiative to collaborate in order improve both the quality and efficiency of individual episodes of care.

Entity Relationship Diagram

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within that system. An ERD is a data modeling technique that can help define business processes and can be used as the foundation for a relational database.

While useful for organizing data that can be represented by a relational structure, an entity-relationship diagram can't sufficiently represent semi-structured or unstructured data, and an ERD is unlikely to be helpful on its own in integrating data into a pre-existing information system.

Three main components of an ERD are the entities, which are objects or concepts that can have data stored about them, the relationship between those entities, and the cardinality, which defines that relationship in terms of numbers. Cardinality notations define the attributes of the relationship between the entities.

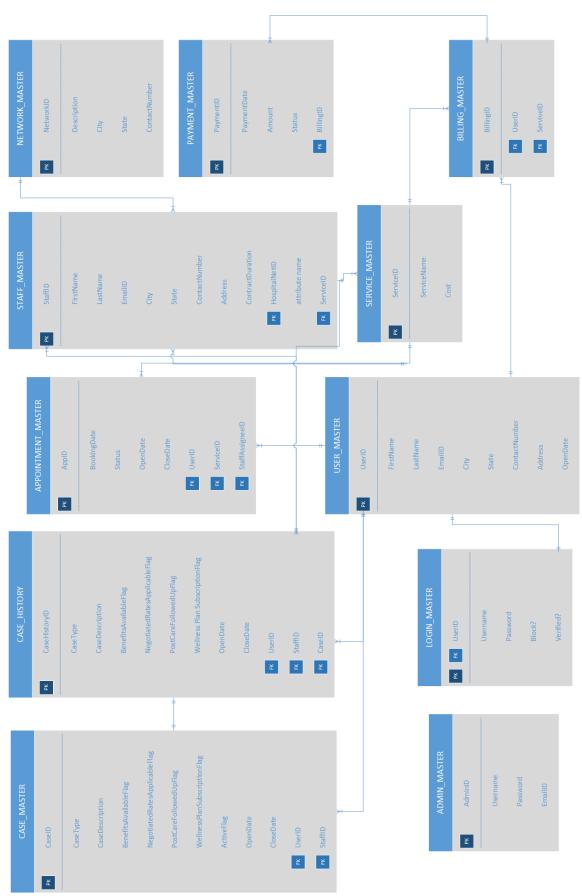
The three main cardinal relationships are:

One-to-one (1:1). For example, if each customer in a database is associated with one mailing address.

One-to-many (1:M). For example, a single customer might place an order for multiple products. The customer is associated with multiple entities, but all those entities have a single connection back to the same customer.

Many-to-many (M:N). For example, at a company where all call center agents work with multiple customers, each agent is associated with multiple customers, and multiple customers might also be associated with multiple agents.

GenNex has the ERD as below which describes the entities, its attributes and their relationships:



Definitions

Entities and Attributes	Definition and Relationships
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1.	USER_MASTER	Users using At Home Services.
1.	UserID	Primary Key for USER MASTER.
	FirstName	First name of the user.
	LastName	Last name of the user.
	EmailID	Email address of the user.
	City	City of the user.
	State	State of the user.
	ContactNumber	Contact number of the user.
	Address	Address of the user.
	OpenDate	Account creation date and time.
	1	For user account verification.
2.	LOGIN_MASTER	
	UserID	Derived Primary key for LOGIN MASTER.
	UserName	Username of the user.
	Password	Password of user.
	Verified?	Flag to know if the user is verified through email confirmation link.
	Block?	Flag to block or unblock a user.
		Admin table to create explicit admin
3.	ADMIN_MASTER	accounts in the system.
	UserName	Username of the admin.
	Password	Password of admin.
	EmailID	Email address of admin.
4.	APPOINTMENT_MASTER	It's a tracking table which tracks all the appointments taken by the user.
	AppID	Primary Key for appointment master.
	BookingDate	Appointment booking date of user.
	Status	Status of the appointment.
	OpenDate	Date and time of when the user started the appointment process.
	ClasaData	Date and time of when the user ended
	CloseDate	the appointment process.
	UserID	Foreign Key of USER MASTER
	Oserib	which maps which user is taking the
		appointment.
	ServiceID	Foreign key of SERVICE_MASTER
		which maps which service appointment
		is booked. Foreign key for STAFF MASTER
	StaffAssignedID	which maps with whom the
		appointment is booked
		appointment to cooked

5. CASE_MASTER	It tracks the case management service for the user.
CaseID	Primary Key for case master.
CaseType	Defining the type of case
CaseDescription	Describing the case
BenefitsAvailableFlag	Checks if benefits are available to that user
NegotiatedRatesApplicableFlag	Rates for the services if under negotiation is checked here.
PostCareFollowedUpFlag	Follow up procedure after the care being taken up or not
WellnessPlanSubcriptionFlag	Wellness plan subscription check
ActiveFlag	Checks if the case is active or not. If it is not active the details are shifted to case master history to maintain the history of cases.
OpenDate	Date and time of when the user started the case management process.
CloseDate	Date and time of when the user ended the case management process.
UserID	Foreign Key of USER_MASTER which maps which user is taking the case management.
StaffID	Foreign Key of STAFF_MASTER which maps which staff is treating the user who has the case management.
6. CASE_HISTORY_MASTER	This table maintains the history of case management when the activeFlag in CASE MASTER is not active.
7. STAFF_MASTER	Table that maintains the staff details. This staff comprises of all the doctors, dentists, practitioners, etc who are in contract with At Home Service.
8. NETWORK_MASTER	Table that maintains the network partners information. If the user requested BQT, than the ERD is capable of tracing the Insurance Company through this table. As Insurance companies are the part of network as per Business Model.
9. SERVICE_MASTER	Table describes all the services that At Home Services caters.
10. PAYMENT_MASTER	Table keeps track of each user's services and adds the payments for each services alongwith status
11. BILLING_MASTER	Table serves as an invoice generation keeping track of all services that the user is taking from At Home Services

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