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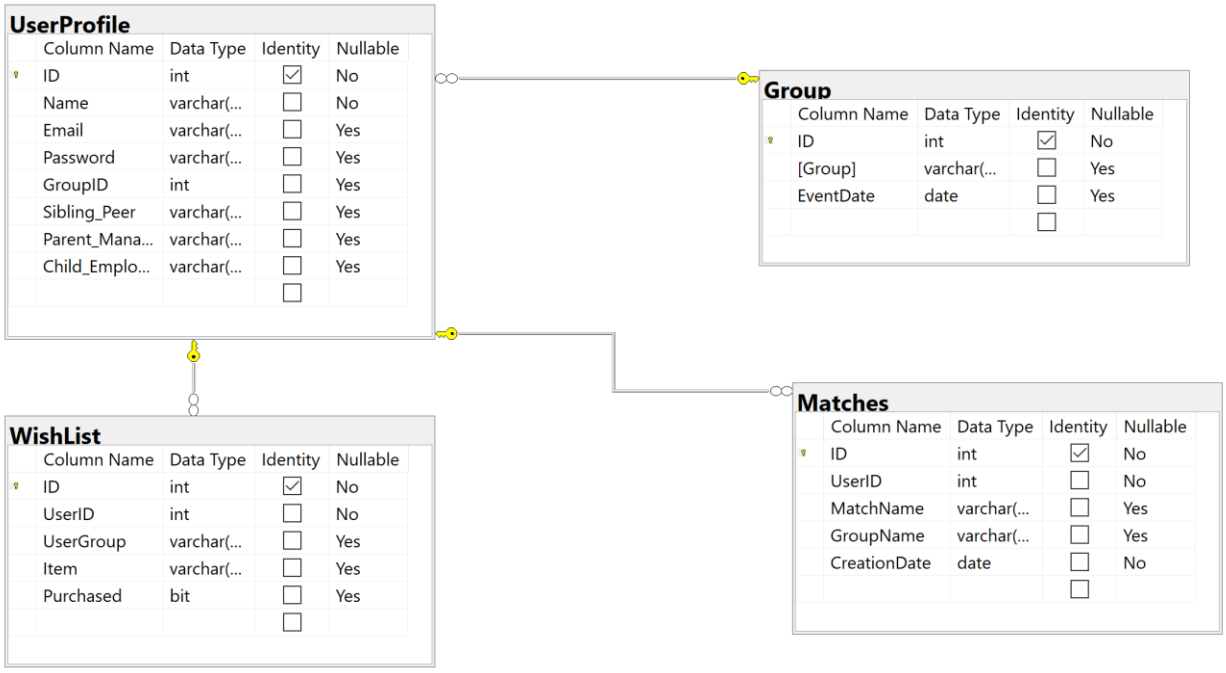
SWDV 691

Database Design Document Redux

For the Gift Exchange Organizer application, I have chosen to retain the data in a relational database. Relational databases lend themselves well to this type of application because there will be many-to-many relationships and the data will be in normal form.

The data structure will consist of one database – named “GiftExchange” – with four tables, as seen below:



The UserProfile table will be the master, with the ID field as the Primary Key. This is also the Foreign Key for the WishList and Matches tables, effectively relating the tables with the User ID. Note that while the UserProfile and WishList tables will be (indirectly) editable by the user, the Matches table will not be. This means that once the match name has been determined, the user cannot change it. It also means that the table can be used for historical data which will be factored into the “Name Drawing” algorithm. With the UserProfile table containing data such as E-mail and relationships, the WishList table containing item URLs or descriptions, and the Matches table containing historical people matching data, all of the necessary data will be available for the application to perform its primary function.

Updates have been made to the design to incorporate feedback received from my classmate. A new table is included to hold Group data, which includes a column for the event date; this further segregates the data, making it possible to have both multiple groups within the same year as well as multiple years for the same group. The Group column in the UserProfile table has been updated to be an integer instead of a character string, and the column has been renamed to “GroupID”. This column is also a Foreign Key, associated with the ID column of the Group table. Finally, a “Password” column has been added to the UserProfile table. This was an oversight in the original design.

The last change made was to add a column to the WishList table called “Purchased”. This is for a Stretch Feature – in a future release I will add a checkbox to the wishlist items viewed by the partner, so that purchased items can be tracked. This will be done per peer review feedback..

The data types for the columns in each table are indicated below:

UserProfile:

[ID] [int] IDENTITY(1,1) (Primary Key)
[Name] [varchar](100)
[Email] [varchar](50)
[Password] [varchar](50)
[GroupID] [int]
[Sibling_Peer] [varchar](100)
[Parent_Manager] [varchar](100)
[Child_Employee] [varchar](100)

Matches

[ID] [int] IDENTITY(1,1) (Primary Key)
[UserID] [int] (Foreign Key)
[MatchName] [varchar](100)
[GroupName] [varchar](50)
[CreationDate] [date]

WishList:

[ID] [int] IDENTITY(1,1) (Primary Key)
[UserID] [int] (Foreign Key)
[UserGroup] [varchar](50)
[Item] [varchar](max)
[Purchased] [bit]

[Group](

[ID] [int] IDENTITY(1,1) NOT NULL (Primary Key)
[Group] [varchar](50) NULL
[EventDate] [date] NULL

The application will not require a lot of administration, therefore will only be one user account created. This will be a generic account with read/write access, which will allow the application to work with the data as necessary. User accounts will be based on E-mail/Password combinations.