**Schema**

**Tables And Columns**:

* User (UserID\*, Password, Name, Email, Phone)
* Items (ItemID\*, Price, Name, Description, DateAdded, UserID, AreaCode, SellerID\_Blobs)
  + Foreign Key UserID, references User
  + Foreign Key SellerID\_Blobs, references User
* Sold\_Items (ItemID\*, Price, Name, Description, DateAdded, DateSold, UserID, AreaCode, SellerID, BuyerID)
  + Foreign Key BuyerID, references User
  + Foreign Key SellerID, references User

\*  **The key columns.**

**Tables**:

* User:
  + This table contains the user information.
  + The entity this table represents a user of the application.
  + All other tables depend on this table since they all make a reference to at least one user.
  + Columns:
    - UserID is a unique key. Randomly created upon creation of the account.
    - Password represents the user’s account password.
    - Phone is the user’s phone number.
    - Email is the User’s email.
* Items:
  + This table contains sales item information.
  + This table represents the sales items within the online marketplace.
  + Foreign key is UserID.
  + Columns:
    - ItemID is the unique key for a specific item.
    - Price is the price of the item.
    - Name is the name of the item, given by the User who owns it.
    - Description is a description of the item given by the User who owns it. Probably a physical description, including details like wear and tear.
    - DateAdded is the date when the item was put for sale.
    - UserID is a foreign key that is used to reference the owner of the item.
    - AreaCode is the location (zip code) of where the item will be sold.
    - ProxyID\_Blobs is a Blob containing userIDs of the people who are authorized to sell a specific item.
* Sold\_Items:
  + This table contains sold items. Once an item has been sold, it will be moved from the Items table to this table.
  + The table represents sold items.
  + Foreign key is UserID.
  + Columns:
    - ItemID is the unique key for a specific item.
    - Price is the price of the item.
    - Name is the name of the item, given by the User who owns it.
    - Description is a description of the item given by the User who owns it.
    - DateAdded is the date when the item was put for sale.
    - DateSold is the date when the item was sold.
    - UserID is a foreign key that is used to reference the owner of the item.
    - AreaCode is the location (zip code) of where the item will be sold.
    - SellerID is a foreign key that references the seller of an item.
    - BuyerID is a foreign key that references the buyer of an item.

**Evidence of Normalization**:

* We reduced redundancy
* Once an item is sold, it is removed from the Items table and added to the Sold\_Items table.