

Inventory Management System database

For Personal Use

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SQL Database Application Documentation

Description of Database Application:

I am not the most organized person and I always lose my things. Over the past few months I've lost countless umbrellas, my wallet many times, keys and the list goes on. This translates to around the house, I often grab something to end up placing it in an unfindable location. With my application I hope to at least keep a record of how my things are stored so I can find them at a later date.

The database I want to create is an inventory management system. I want to keep the exact usage mostly vague so it can be used for general storage management. The base use case I have in mind is for keeping track of what's in your pantry but there are plenty of uses that it can be adapted to. Such as, Keeping track of my clothes, or even keeping track of groceries. I want this database to be quick and logically designed. The UI should display the data as readable as possible possibly, having the user see what is inventoried clearly. The web app should be easy and convenient to sign items. There should be different accounts separating who signed out what. Along with that users should be restricted to view items they only have access to view. This is for the reason of separating person inventory so many people can use this application at the same time.

Application Requirements:

1. Provide a database that catalogs the inventory. Items should be queryable by category, SKU#, Title, etc.
2. Users should be granted different levels of access as well as different views to correspond to access level.
 - 2.1. Admin oversees all items.
 - 2.2. Other users will be given access to view based on their groups
3. Since the database is more intended for personal use, the target size of the database is expected to have a max of 10k items.
4. All users should be able to view important identifying info such as but not limited to title, description and category.
5. Web based app for ease of use and maybe mobile integration

Due Diligence:

Because the proposed database is only a representation of your physical belongings, there will not be any copyright related issues arising. The data for this database is intended to be kept private with only a small set of users to be accessing such data (Ex. members of a household.)

DD 1.1) It is our belief that this application is not responsible for monitoring users private data; it is up to the users discretion of what should be privately posted. This application should be viewed similarly to a file sharing application (google drive)

Documents and Details:

Table of Attributes:

attribute	comment
username	The name of a user used to login
password	The password of a user
accessLevel	The category the group has access to
groupName	The name of a user group
groupID	The unique ID of a group
date	The date a user signed out a book
signOutQty	The qty of items a user signed out
itemQty	The total qty of an item there is
SKU	An unique code to identity the item
itemTitle	A short way to describe an item
itemDesc	A long description of an item
catTitle	The name of a category
catCode	A unique code to identify a category
catDesc	A description of the category

Assumptions and Constraints:

1. Username uniquely identifies a user, users can only have one username
2. User can only have one password
3. SKU uniquely identifies a item, items can only have one sku
4. itemQty, itemTitle and itemDesc is functional determined by SKU
5. For each item there will only be one itemQty, itemTitle and itemDesc
6. The combination of SKU and username determines date and signOutQty
7. catCode uniquely identifies a category, categories can only have one catCode
8. catCode determines catTitle and catDesc
9. groupName uniquely identifies a group, groups can only have one groupName
10. groupName determines catCode //aka access level in database

3NF Table:

Username, password //USER

Username, groupName //ApartOf

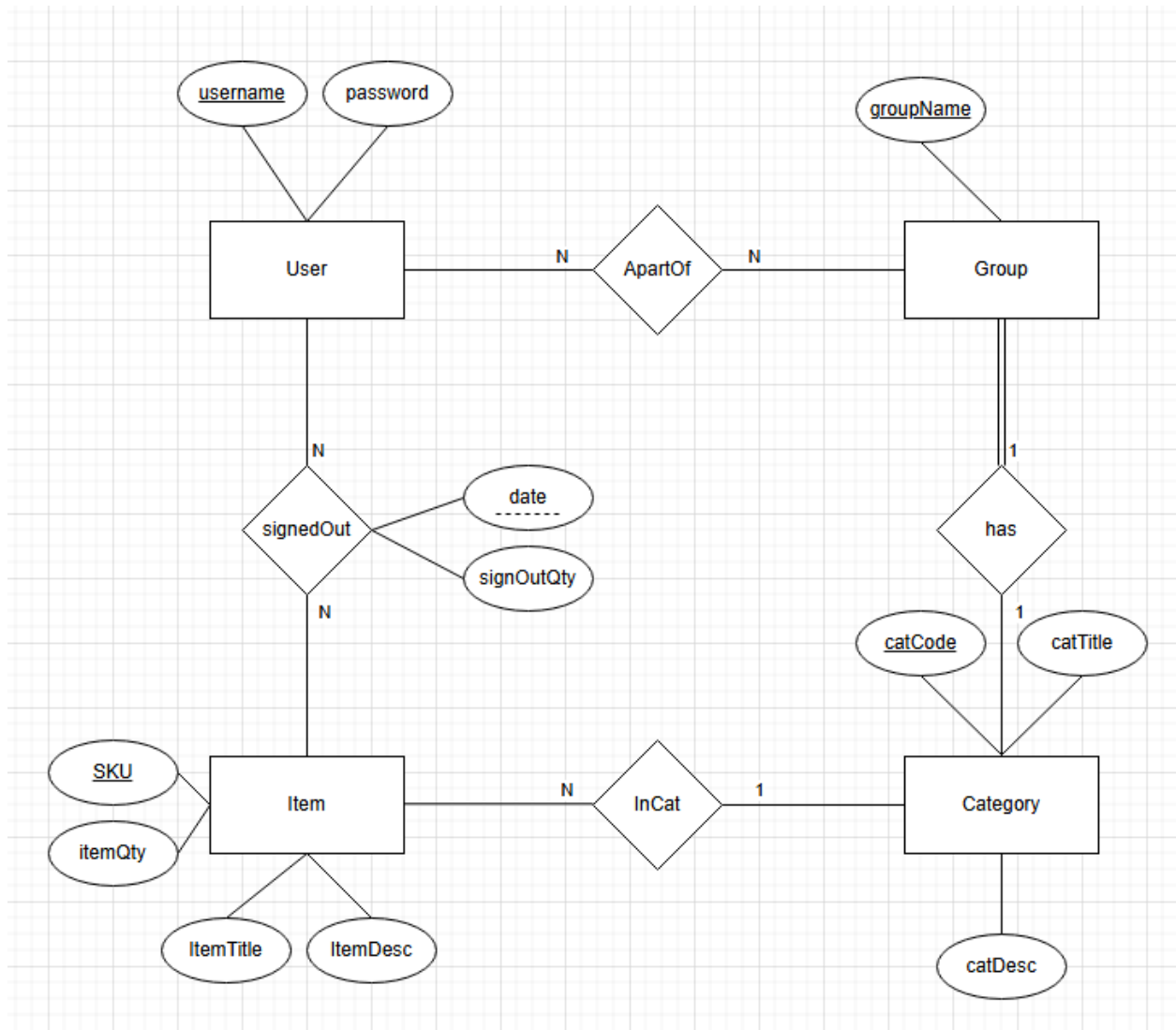
groupName, catCode//Group

Username, SKU, date, signOutQty //SignedOut

SKU, itemQty, itemTitle, itemDesc, catCode //Item

catCode, catTitle, catDesc//Category

ER Model:



Demonstrate one of the primary use-case queries of your database application.

Logging in

Demonstrate a second important use-case query of your database application.

Items page

Demonstrate a query that involves an N:N relationship in your data.

Sign out an item and sign in. Then show the user not being able to see the food category

Demonstrate a query that involves a secondary refinement, or query based on the results of the first query.

Show any of the items or categories to individual .

Youtube video:

<https://youtu.be/gCZQmfRbRXk>