Database Final Project Report
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Database:

Buyer(BuyerID, Card, ExpiryDate, SecurityCode, cardType);
CartProducts(CartNo, StoreNumber, ProductNo, Quantity);
carttotalview(CartNo, Total);
Order(OrderID, Buyer, Status);
OrderProducts(OrderNo, ProductN, storeNumber, QuantityOrdered);
ordertotalview(OrderID, Total);
Product(storeNum, ProductID, ProductName, Price, Description, Stock);
StoreCat(storeNo, Category);
User(FName, LName, Email, Phone, Password, Address, BuyerNum, SellerNum, StoreName);

Changes to Structure:

At first, I had a table for Store, Cart, Seller and StoreProducts, then I realized that this was redundant and merged Store's, Seller's and Cart's attributes with the User table and stored each project's store in the Product table. Aside from that I made some minor changes such as making some attributes unique or not null or changing the sizes of some attributes.

Submission Files:

DBAddProduct.php - *This adds a new product to the Product table.*
DBAddToCart.php - *This adds a new entry in the CartProducts table.*
DBAddUserBuyer.php - *This adds a new entry in User and a new empty entry in Buyer with their IDs linked. It encrypts the password using Base64 before uploading it.*
DBAddUserBuyer2.php - *This edits the newly created entry in Buyer with information.*
DBAddUserSeller.php - *This adds a new entry in User. It encrypts the password using Base64 before uploading it.*
DBCheckout.php - *This creates a new entry in Order and transfers entries from the CartProducts table to the OrderProducts table.*
DBEditOrder.php - *This modifies an entry in the Order table.*
DBEditProduct.php - *This modifies an entry in the Product table.*
DBEditStore.php - *This modifies an entry in the User and StoreCat tables.*
DBEditUserSeller.php - *This modifies an entry in the user table.*
DBFillCart.php - *This displays all the entries belonging to a certain buyer from the CartProducts table.*
DBFillOrder.php - *This displays all the entries belonging to a certain buyer from the OrderProducts table.*
DBFillStores.php - *This displays all the available stores from the User table.*
DBOrderInfo.php - *This displays all the orders belonging to a certain store from the Order table.*
DBOrderProducts.php - *This displays all the products in an order from the Order and Products tables.*
DBProductInfo.php - *This displays all the information of a product from the Product table.*

DBRegisterBuyer.php - *This modifies the User table and adds a buyer ID to a user who is currently a seller.*

DBRegisterSeller.php - *This modifies the User table and adds a seller ID to a user who is currently a buyer.*

DBRemoveFromCart.php - *This deletes a product entry from CartProducts.*

DBRemoveProduct.php - *This deletes a product entry from Product.*

DBSearchCategories.php - *This displays all stores that have a given category from the StoreCat and User tables.*

DBSearchProducts.php - *This displays all stores that have a given product from the Product and User tables.*

DBSearchStores.php - *This displays all stores that have a given name from the User tables.*

DBSetupStore - *This updates the User and StoreCat tables to add a store name and categories.*

DBStoreFill.php - *This displays the products sold in a store from the Product table.*

DBStoreInfo.php - *This displays the name and category of a store from the User and StoreCat tables.*

DBUserLogin.php - *This displays all the information, offering the decrypted password, of a User given their email.*

Logic & Screenshots:

The user interface I created was made using Android Studio and is an Android application. The database was created on MySQL using PHPMyAdmin running on LocalHost.

CheckoutDialogFragment - *Confirms that the user wants to check out, empties the cart if they confirm and runs the DBCheckout.php script.*

CustomAdapter - *Makes sure that all ListViews throughout the application display objects of the class Item explained below.*

FirstActivity - *This is the screen shown when the user first downloads the application or they have just logged out, it allows them to sign up as either a buyer or seller or to sign in. If they are already signed in, this page will not be displayed to them when they open the application. This is achieved by writing to and reading from the Shared Preferences on the mobile device.*

Item - *This is a class consisting of strings that either represent a product's name, price, and stock when displayed in a store, a product's name, price, and ordered quantity when displayed in a cart or order, an order's ID, status, and buyer if displayed in a seller's store, or an order's ID, status, and total price if displayed in a buyer's order page.*

LoginActivity - *This allows the user to log in by running the DBUserLogin.php script and compares the returned password with the one the user entered either allowing them to continue or not, if the passwords match it also updates the Shared Preferences with all the user's information as returned from the script to be used throughout the application.*

LogoutDialogFragment - *Confirms that the user wants to log out and returns them to FirstActivity if they confirm.*

MenuActivity - *This is the main menu of the application and has all the features which are enabled and disabled depending on whether the user is a buyer or seller (search, cart, order for buyers and store for sellers).*

MyCartActivity - *This displays all the products in the user's cart and the total price of those products using the DBFillCart.php script, allows the user to remove items from the cart using the DBRemoveFromCart.php script, and allows the user to check the items out using the DBCheckout.php script.*

MyOrdersActivity - *This displays all the orders belonging to a user using the _DBFillOrders.php_ script.*

MyStoreActivity - *This displays a seller's store to them, showing them their products using the _DBProductInfo.php_ script, and orders from their store using the _DBOrderInfo.php_ script. It allows the store owner to add a product (_DBAddProduct.php_), remove a product (_DBRemoveProduct.php_), edit a product(_DBEditProduct.php_), or edit the store (_DBEditStore.php_).*

OrderDialogActivity - *This displays information about an order and its products using the _OrderProducts.php_ script and if the user is viewing this from the MyStoreActivity, it allows them to edit the status of the order using _DBEditOrder.php_ script.*

ProductDialogActivity - *This displays information about a product, if the user is viewing it from MyStoreActivity or StoreActivity, then it displays the current stock, if they are viewing it from MyCartActivity or MyOrdersActivity then it displays the amount ordered. If it is viewed from the MyStoreActivity, then there is also an option to edit the product as mentioned earlier.*

ProfileActivity - *This displays all the information about the user. It allows them to log out, edit their information (_DBEditUserSeller.php_), register as a buyer if they are a seller (_DBRegisterBuyer.php_+_DBAddUserBuyer2_.php), register as a seller if they are a buyer (_DBRegisterSeller.php_), view their store if they have one, or setup a store if they do not (_DBSetupStore.php_).*

SearchActivity - *This allows buyers to view all available stores (DBFillStores.php), and to search for a store based on its name (DBSearchStores.php), category (DBSearchCategories.php), or the products offered (DBSearchProducts.php).*

SetupStoreActivity - *This allows the user to enter information about their new store and updates the database accordingly using _SetupStore.php._*

SignUpBuyer2Activity - This allows the user to enter or edit their payment information using the _DBAddUserBuyer2_.php script.

SignUpBuyerActivity & SignUpSellerActivity - *These are identical and are displayed to the user depending on their choice in FirstActivity, they allow the user to enter their information and updates the database using _DBAddUserSeller.php_ or _DBAddUserBuyer.php_ and then redirects to either SignUpBuyer2Activity or MenuActivity.*

StoreActivity - *This is displayed when a buyer searches for a store and then selects one from the SearchActivity, it displays the store's name, categories, and products using _DBStoreFill.php_ and _DBStoreInfo.php_.*