

SQL Statements

1. Create Tables

We will first create the tables that we will use in this application. The tables have been numbered in the sequence they should be created to ensure referential integrity:

1.1 USERS table

```
create table if not exists USERS(  
    userEmail nvarchar(50) NOT NULL,  
    userSurname text NOT NULL,  
    userName text NOT NULL,  
    userCellNo text NOT NULL,  
    userAccount text,  
    userBankName text,  
    userAddress text,  
    PRIMARY KEY(userEmail)  
);
```

1.2 CARDS table

```
create table if not exists CARDS(  
    cardNumber nchar(12) NOT NULL,  
    cardCVV nchar(3) NOT NULL,  
    cardExpDate nchar(5) NOT NULL,  
    userEmail nvarchar(50) NOT NULL,  
    PRIMARY KEY(cardNumber),  
    FOREIGN KEY(userEmail) REFERENCES USERS(userEmail)  
);
```

1.3 ITEMS table

```
create table if not exists ITEMS(  
    itemID int NOT NULL AUTO_INCREMENTAL,  
    itemDesc text NOT NULL,  
    itemCategory text NOT NULL,
```

```
    itemSize text,  
    itemStatus text NOT NULL,  
    itemBrand text NOT NULL,  
    itemPrice money NOT NULL,  
    itemGender nchar(1),  
    userEmail nvarchar(50) NOT NULL,  
    PRIMARY KEY(itemID),  
    FOREIGN KEY(userEmail) REFERENCES USERS(userEmail)  
);
```

1.4 BASKETS table

```
create table if not exists BASKETS(  
    basketID int NOT NULL AUTO_INCREMENT,  
    userEmail nvarchar(50) NOT NULL,  
    PRIMARY KEY(basketID),  
    FOREIGN KEY(userEmail) REFERENCES USERS(userEmail)  
);
```

1.5 BASKETQUEUE table

```
create table if not exists BASKETQUEUE(  
    dateAdded text NOT NULL,  
    basketID int NOT NULL FOREIGN KEY REFERENCES BASKETS(basketID),  
    itemID int NOT NULL FOREIGN KEY REFERENCES ITEMS(itemID),  
);
```

1.6 INVOICES table

```
create table if not exists INVOICES(  
    invID int NOT NULL AUTO_INCREMENT,  
    invDate text NOT NULL,  
    invDesc text NOT NULL,  
    invTotal money NOT NULL,  
    basketID int,
```

PRIMARY KEY(invid),

FOREIGN KEY(basketID) REFERENCES BASKETS(basketID)

);

2. Table Data

2.1 USERS Table

	userEmail	userSurname	userName	userCellNo	userAccount	userBankName	userAddress
▶	jane.doenut@outlook.com	Doe	Jane	0841505253	1051859323	Standard Bank	3 Sapphire Rd, Rocklands
	mickyle.james@gmail.com	James	Mickyle	0670210123	1230141424	Capitec Bank	1 Marlin Crescent, Strandfontein

This statement is what is used to insert an item into the USERS table:

“insert into USERS values(“ + userEmail + “,” + userSurname + “,” + username + “,” + userCellNo + “,” + userAccount + “,” + userBankName + “,” + userAddress + “”);”

2.2 ITEMS Table

	itemID	itemDesc	itemCategory	itemSize	itemStatus	itemBrand	itemPrice	itemGender	userEmail
▶	3	Nike Jacket black/white	Top	M	Available	Nike	300	M	mickyle.james@gmail.com
	4	Adidas Tracksuit Pants black	Pants	S	Available	Adidas	150	F	jane.doenut@outlook.com

This statement is what is used to insert an item into the ITEMS table:

“insert into ITEMS values(“ + itemDesc + “,” + itemCategory + “,” + itemSize + “,” + ‘Available’ + “,” + itemBrand + “,” + itemPrice + “,” + itemGender + “,” + userEmail + “”);”

2.3 CARDS Table

	cardNumber	cardCVV	cardExpDate	userEmail
	501241242...	722	09/26	mickyle.j...
▶	501290095...	643	10/24	jane.do...

This statement is what is used to insert an item into the CARDS table:

“insert into CARDS values(“ + cardNumber + “,” + cardCVV + “,” + cardExpDate + “,” + userEmail + “”);”

2.4 BASKETS Table

	basketID	userEmail
▶	2	jane.doenut@outlook.com
	1	mickyle.james@gmail.com

This statement is what is used to insert an item into the BASKETS table:

“insert into BASKETS values(“+basketID+”,“+ userEmail+”);”

2.5 BASKETQUEUE Table

	dateAdded	basketID	itemID
	1/06/2023	1	4
▶	25/05/2023	2	3
★	NULL	NULL	NULL

This statement is what is used to insert an item into the BASKETQUEUE table:

“insert into BASKETQUEUE values(“+ dateAdded+”,“+basketID+”,“+ itemID+”);”

2.6 INVOICES Table

	invID	invDate	invDesc	invTotal	basketID
	1	01/10/...	Nike Ja...	300	2
▶	2	25/9/2...	Adidas...	150	1

This statement is what is used to insert an item into the INVOICES table:

“insert into INVOICES values(“+ invDate+”,“+invDesc+”,“+ invTotal+”,“+ basketID +”);”

3.SQL QUERIES

3.1 SELECT * FROM items WHERE userEmail= ‘cristie7ronny@gmail.com’;

	itemID	itemDesc	itemCategory	itemSize	itemStatus	itemBrand	itemPrice	itemGender	userEmail
▶	5	Nike Mecurial Red/Yellow	Shoes	M	Delivered	Nike	800	U	cristie7ronny@gmail.com
	6	Plain White Tee	Top	M	Available	Oakridge	100	M	cristie7ronny@gmail.com
	7	Silver Studded Necklace	Accessory	NULL	In Transit	Other	1200	U	cristie7ronny@gmail.com
★	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

This query is used to filter out items being sold and only displays items sold by a specific user. This can be used in the user profile.

3.2 SELECT * FROM items WHERE itemSize = ‘M’ AND itemCategory=‘Top’;

	itemID	itemDesc	itemCategory	itemSize	itemStatus	itemBrand	itemPrice	itemGender	userEmail
▶	3	Nike Jacket black/white	Top	M	Available	Nike	300	M	mickyle.james@gmail.com
	6	Plain White Tee	Top	M	Available	Oakridge	100	M	cristie7ronny@gmail.com
★	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

This query can be used to do a filtered search for items that have a specific size. In this example we are searching for items that are available in a medium size and are tops.

3.3 SELECT * FROM invoices WHERE basketID = 6;

	invID	invDate	invDesc	invTotal	basketID
▶	1	01/10/2023	Nike Mecurial Red/Yellow	800	6
	2	25/9/2023	Silver Studded Necklace	1200	6
•	NULL	NULL	NULL	NULL	NULL

This query is used to find the purchase history of a user based on their basketID. In this example, we have gathered all the items purchased by the user who owns the basket of basketID = 6.

3.4 SELECT userEmail, userSurname, userName, userCellNo, itemDesc, itemCategory, itemSize, itemBrand, itemPrice, itemGender FROM users NATURAL JOIN items;

	userEmail	userSurname	userName	userCellNo	itemDesc	itemCategory	itemSize	itemBrand	itemPrice	itemGender
▶	mickyle.james@gmail.com	James	Mickyle	0670210123	Nike Jacket black/white	Top	M	Nike	300	M
	jane.doenut@outlook.com	Doe	Jane	0841505253	Adidas Tracksuit Pants black	Pants	S	Adidas	150	F
	cristie7ronny@gmail.com	Ronaldo	Cristiano	0625150354	Nike Mecurial Red/Yellow	Shoes	M	Nike	800	U
	cristie7ronny@gmail.com	Ronaldo	Cristiano	0625150354	Plain White Tee	Top	M	Oakridge	100	M
	cristie7ronny@gmail.com	Ronaldo	Cristiano	0625150354	Silver Studded Necklace	Accessory	NULL	Other	1200	U

This query displays all the items that are being sold and which users are selling them. This can be used to the admin's benefit, which displays the seller's information to the admin, to be able to contact them. This can also be used in the item information page for buyers to be able to contact the sellers as well.