

Stock Broker DBMS Project

Deliverable 3

1. Table Creation

CREATING: STOCKTABLE

```
CREATE TABLE StockTable (  
    Ticker          VARCHAR2(8)  NOT NULL,  
    AssetClass      VARCHAR2(20) NOT NULL,  
    Price           NUMBER(13),  
    PRIMARY KEY (Ticker, AssetClass),  
    CONSTRAINT      Price CHECK (Price > 0.00)  
);
```

SQL DESCRIBE:

```
SQL> describe Stock  
Name                               Null?   Type  
-----  
TICKER                             NOT NULL VARCHAR2(8)  
ASSETCLASS                         NOT NULL VARCHAR2(20)  
PRICE                             NOT NULL NUMBER(13)
```

Creating: OPTN

```
SQL> CREATE TABLE Optn (  
    Ticker          VARCHAR2(8)  NOT NULL,  
    AssetClass      VARCHAR2(20) NOT NULL,  
    Price           NUMBER(13)   NOT NULL,  
    OptionType      VARCHAR2(4)  NOT NULL,  
    Strike          NUMBER(13)   NOT NULL,F  
    ExpDate         DATE,  
    PRIMARY KEY (Ticker, AssetClass),  
    CONSTRAINT      Strike CHECK (Strike > 0.00)  
);
```

Foreign Key Constraints:

```
SQL> ALTER TABLE OPTN
```



```
2 ADD CONSTRAINT Valid_OPTN_Type
3 FOREIGN KEY(OptionType) REFERENCES OptionOrderTypes(Type);
```

```
SQL> ALTER TABLE OPTN
2 ADD CONSTRAINT Valid_Asset_Class
3 FOREIGN KEY(AssetClass) REFERENCES AssetClassTable(Class);
```

SQL DESCRIBE:

```
SQL> describe Optn
```

Name	Null?	Type

TICKER	NOT NULL	VARCHAR2(8)
ASSETCLASS	NOT NULL	VARCHAR2(20)
PRICE	NOT NULL	NUMBER(13)
OPTIONTYPE	NOT NULL	VARCHAR2(4)
STRIKE	NOT NULL	NUMBER(13)
EXPDATE		DATE

CREATING: ContainsStock

```
CREATE TABLE ContainsStock (
    AccountNO          Number(12) NOT NULL,
    Ticker              VARCHAR2(8) NOT NULL,
    PurchasePrice       NUMBER(13) NOT NULL,
    Quantity            NUMBER(13) NOT NULL,
    PRIMARY KEY (AccountNO, Ticker),
    CONSTRAINT PurchasePrice CHECK (PurchasePrice > 0.00)
);
```

Adding Foreign Keys:

```
ALTER TABLE ContainsStock
ADD CONSTRAINT FK_AccountNO2
FOREIGN KEY(AccountNO) REFERENCES Account (AccountNO);

ALTER TABLE ContainsStock
ADD CONSTRAINT FK_TickerAssetClass
FOREIGN KEY(Ticker, AssetClass) REFERENCES StockTable (Ticker, AssetClass);
```


