

## Database Schema for Bully Stock Exchange

### Account

AccountId Username Password Fname Lname Mi Dcreate Dterm

### Portfolio

AccountId Balance

### Holdings

AccountId Symbol BoughtAt NumShares Avail AskPrice

### Trades

AccountId Symbol Trans NumShares TradedAt Dtime

### Companies

Name Symbol Tshares Ipo Open Last Volume HTname

### History Tables

Dtime TradedAt Trans NumShares

## BullySE Database Schema with Data Types

### Account

- AccountId int(12) zerofill not null
- Username varchar(16) not null
- Password varchar(16) not null
- Fname varchar(20) not null
- Lname varchar(20) not null
- Mi varchar(3)
- Dcreate datetime not null
- Dterm datetime not null

### Portfolio

- AccountId int(12) zerofill not null
- Balance double(12,2) [default 0]

### Holdings

- AccountId int(12) zerofill not null
- Symbol varchar(7) not null
- BoughtAt double(12,2) zerofill
- NumShares int(10)
- Avail int(10)
- AskPrice double(5,2) zerofill

## BullySE Database Schema with Data Types (cont.)

### Trades

- AccountId int(12) zerofill not null
- Symbol varchar(7) not null
- Trans enum('B', 'S') not null
- NumShares int(10)
- TradedAt double(5,2) zerofill
- Dtime datetime

### Companies

- Name text not null
- Symbol varchar(7) not null
- Tshares int(10)
- Ipo double(5,2)
- Open double(5,2)
- Last double(5,2)
- Volume int(12)
- HTname varchar(10)

### History Tables

- Dtime datetime not null
- TradedAt double(5,2)
- Trans enum('B', 'S') not null
- NumShares int(10)

## BullySE Create Statements

```
create database bullyse;
```

```
create table account(  
    AccountId    int(12) zerofill not null,  
    Username     varchar(16) not null,  
    Password     varchar(16) not null,  
    FName       varchar(20) not null,  
    LName       varchar(20) not null,  
    Mi          varchar(3),  
    Dcreate     datetime not null,  
    Dterm       datetime not null,  
    primary key(AccountId, Username, Dcreate, Dterm));
```

```
create table portfolio(  
    AccountId    int(12) zerofill not null,  
    Balance      double(12,2), [default 0]  
    primary key(AccountId));
```

```
create table holdings(  
    AccountId    int(12) zerofill not null,  
    Symbol       varchar(7) not null,  
    BoughtAt     double(12,2) zerofill,  
    NumShares    int(10),  
    Avail        int(10),  
    AskPrice     double(5,2) zerofill,  
    primary key(AccountId, Symbol));
```

```
create table trades(  
    AccountId    int(12) zerofill not null,  
    Symbol       varchar(7) not null,  
    Trans        enum('B', 'S') not null,  
    NumShares    int(10),  
    TradedAt     double(5,2) zerofill,  
    Dtime        datetime not null,  
    primary key(AccountId, Symbol, Dtime, Trans));
```

## **BullySE Create Statements (cont.)**

```
create table companies(  
  Name      text not null,  
  Symbol    varchar(7) not null,  
  Tshares   int(10),  
  Ipo       double(5,2),  
  Open      double(5,2),  
  Last      double(5,2),  
  Volume    int(12),  
  HTname    varchar(10),  
  primary key(Name, Symbol));  
  
create table [HTname](  
  Dtime     datetime not null,  
  TradedAt  double(5,2),  
  Trans     enum('B', 'S') not null,  
  NumShares int(10),  
  primary key(Dtime, Trans));
```