

Database Design Document

CS6441 Database Management Systems

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Create Tables

– create company table

```
CREATE TABLE company(  
    ticker varchar(25) NOT NULL,  
    company_name varchar(25),  
    street varchar(100),  
    city varchar(25),  
    state varchar(25),  
    zip varchar(25),  
    country varchar(25) NOT NULL,  
    PRIMARY KEY (ticker)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

– create transaction table

```
CREATE TABLE transactions(  
    ticker varchar(25) NOT NULL,  
    date date NOT NULL,  
    open decimal(10,2),  
    high decimal(25,2),  
    low decimal(25,2),  
    close decimal(10,2),  
    volume int(10),  
    PRIMARY KEY (ticker, date)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;  
ALTER TABLE transactions  
    ADD FOREIGN KEY (ticker)  
    REFERENCES company (TICKER);
```

– create user table

```
CREATE TABLE `users` (  
    `username` varchar(25) NOT NULL,  
    `last_name` varchar(100) NOT NULL,  
    `first_name` varchar(100) NOT NULL,  
    `register_time` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP(),  
    `login_time` timestamp DEFAULT NULL,  
    `email` varchar(25) NOT NULL,  
    `passwd` varchar(32) DEFAULT NULL,  
    PRIMARY KEY (`username`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

– create search table

```
CREATE TABLE `searches` (  
    `query` varchar(25) NOT NULL,  
    `date_performed` timestamp NOT NULL,  
    `username` varchar(25) NOT NULL,  
    `results` varchar(400) DEFAULT NULL,  
    PRIMARY KEY (`query`, `date_performed`, `username`),  
    KEY `username` (`username`),  
    CONSTRAINT `searches_ibfk_1` FOREIGN KEY (`username`) REFERENCES `users` (`username`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1
```

LoadSampleData

```
-- Loading company info tableINSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('AAPL', 'Apple', '1
Infinite Loop', 'Cupertino', 'CA', '95014', 'United States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('AMD', 'AMD', '1 AmdPlace', 'Sunnyvale', 'CA', '94088', 'United
States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('AMZN', 'Amazon', '410 Terry Avenue North', 'Seattle', 'WA',
'98109', 'United States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('AOL', 'AOL', '770 Broadway', 'New York', 'NY', '10003', 'United
States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('BIDU', 'Baidu.com', 'Shangdi 10th Street', 'Haidian District',
'Beijing', '100085', 'China');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('EMC', 'EMC Corporation', '176 South Street', 'Hopkinton',
'MA', '01748', 'United States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('FB', 'Facebook', '1 Hacker Way', 'Menlo Park', 'CA', '94025',
'United States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('GOOG', 'Google', '1600 Amphitheatre Parkway', 'Mountain
View', 'CA', '94043', 'United States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('IBM', 'IBM', '1 New Orchard Road', 'Armonk', 'NY', '10504',
'United States');
INSERT INTO company(ticker, company_name, street, city, state, zip, country) VALUES('INTC', 'Intel', '2200 Mission College Blvd', 'Santa Clara', 'CA',
'95052', 'United States');
```

```
-- Sample data for loading into transactions tableINSERT INTO transactions(ticker, date, open, high, low, close, volume) VALUES
('AAPL', '2000-01-03', 105, 122, 87, 26, 23688100);
INSERT INTO transactions(ticker, date, open, high, low, close, volume) VALUES('AAPL', '2000-02-01', 104, 120, 97, 29, 13741000);
INSERT INTO transactions(ticker, date, open, high, low, close, volume) VALUES('AAPL', '2000-03-01', 119, 150, 114, 34, 14143500);
INSERT INTO transactions(ticker, date, open, high, low, close, volume) VALUES('AMZN', '2012-05-01', 229, 233, 207, 213, 4441700);
INSERT INTO transactions(ticker, date, open, high, low, close, volume) VALUES('AMZN', '2012-06-01', 208, 228, 206, 228, 3302800);
INSERT INTO transactions(ticker, date, open, high, low, close, volume) VALUES('AMZN', '2012-07-02', 229, 241, 213, 233, 3847300);
INSERT INTO transactions(ticker, date, open, high, low, close, volume) VALUES('AMZN', '2012-08-01', 234, 250, 229, 248, 2762600);
```

-- Sample of users data insert with MD5 hash

```
INSERT INTO users2
(username, last_name, first_name, login_time, email, passwd)
VALUES
('doej', 'Doe', 'John', SYSDATE(), 'jdoe@msstate.edu', MD5('password'));
```

-- Sample of search history table inserts

```
INSERT INTO searches
(query, date_performed, username, results)
VALUES
('APPL', SYSDATE(), 'doej', 'SUCCESS');
```