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EECS 339

Financial Portfolio Lab: DML and DQL

DML:
- Users

INSERT into users (name,password) VALUES ($username,$password)
DELETE FROM users WHERE name=$username

- Portfolios

INSERT INTO portfolios(username,cash_amnt,name) VALUES
    ($username,$cash_amnt,$portfolio_name)
UPDATE portfolios SET cash_amnt=$balance WHERE username=$username
    AND name=$portfolio_name

- Holdings

INSERT INTO holdings(username,portfolio_name,stock_symbol,shares)
    VALUES($username,$portfolio_name,$symbol,$shares)
UPDATE holdings SET shares=$shares WHERE username=$username AND
    portfolio_name=$portfolio_name AND stock_symbol=$symbol
DELETE FROM holdings WHERE username=$username AND
    portfolio_name=$portfolio_name AND stock_symbol=$symbol

- DailyInfo

INSERT INTO dailyinfo(timestamp,symbol,open,close,high,low,volume) VALUES
    ($timestamp,$stock_symbol,$open,$close,$high,$low,$volume)

DQL:
- Users

SELECT name, email FROM users ORDER BY name
SELECT count(*) FROM users WHERE name=$username AND
    password=$password

- Portfolios

SELECT name, cash_amnt FROM portfolios WHERE username=$username
SELECT name FROM portfolios WHERE username=$username
SELECT cash_amnt FROM portfolios WHERE username=$username AND
    name=$portfolio_name

- Holdings

SELECT stock_symbol, shares FROM holdings WHERE username=$username
    AND portfolio_name=$portfolio_name

SELECT distinct stock_symbol FROM holdings WHERE username=$username AND portfolio_name=$portfolio_name ORDER BY stock_symbol ASC
SELECT shares FROM holdings WHERE username=$username AND portfolio_name=$portfolio_name AND stock_symbol=$symbol

- DailyInfo

SELECT timestamp,close FROM (SELECT timestamp,close,symbol FROM cs339.StocksDaily UNION SELECT timestamp,close,symbol FROM dailyinfo) WHERE symbol=$symbol AND timestamp>=$from AND timestamp<=$to order by timestamp,
SELECT count(*),avg(l.close),stddev(l.close),avg(r.close),stddev(r.close) FROM (SELECT close,symbol,timestamp FROM cs339.StocksDaily union SELECT close,symbol,timestamp FROM dailyinfo) l join (SELECT close,symbol,timestamp FROM cs339.StocksDaily union
SELECT close,symbol,timestamp FROM dailyinfo) r on l.timestamp= r.timestamp WHERE l.symbol=$s1 AND r.symbol=$s2 AND l.timestamp>=$from AND l.timestamp<=$to
SELECT avg((l.close - $mean_f1)*(r.close - $mean_f2)) FROM (SELECT close, symbol, timestamp FROM cs339.StocksDaily union SELECT close, symbol, timestamp FROM dailyinfo) l join (SELECT close, symbol, timestamp FROM cs339.StocksDaily union SELECT close, symbol, timestamp FROM dailyinfo) r on l.timestamp=r.timestamp WHERE l.symbol=$s1 AND r.symbol=$s2 AND l.timestamp>=$from AND l.timestamp<=$to
SELECT close FROM (SELECT timestamp,close,symbol FROM cs339.StocksDaily UNION SELECT timestamp,close,symbol FROM dailyinfo) WHERE symbol=$symbol ORDER BY timestamp

- Stocks

SELECT distinct symbol FROM cs339.StocksSymbols ORDER BY symbol ASC