

TECH

# Russia's hack into the US election was surprisingly inexpensive, Mueller report shows

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## KEY POINTS

- Russian hackers used “straightforward” techniques to hack into computer networks for the Democrats’ 2016 election campaign, experts told CNBC following the release of special counsel Robert Mueller’s report.
- The main method was “spearphishing” where a malicious email is sent to a targeted recipient.
- Experts noted that the hacking and the social media campaigns carried out by Russian internet trolls appeared to require limited resources.

## TRENDING NOW



Elon Musk emailed employees about how great Tesla’s autonomy day was, but the plan has lots of holes



Kohl’s is going to accept Amazon returns in all of its stores across

<https://www.cnbc.com/2019/04/23/mueller-report-russia-hack-of-us-elections-apparently-inexpensive.html>

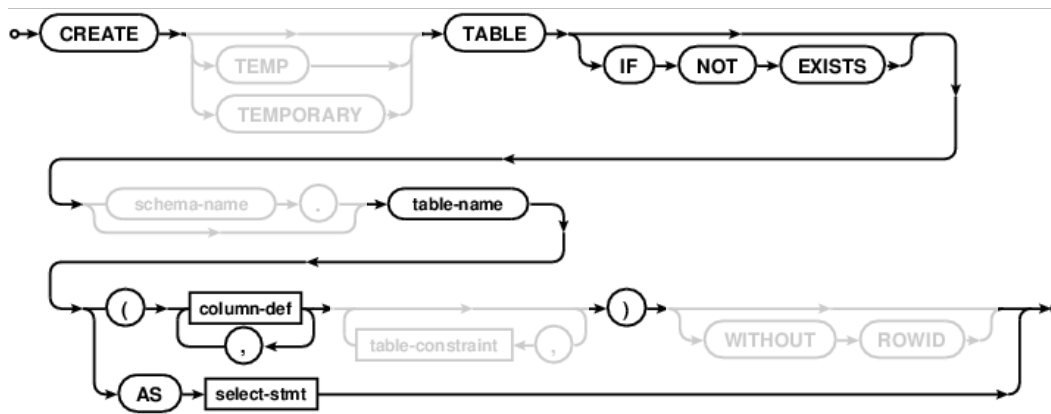
It wasn't just Clinton's campaign the GRU attempted to hack, it was also the computer systems containing voter information. In one instance, the Russian hacking group used a technique known as "SQL injection" to compromise the computer network of the Illinois State Board of Elections. An SQL injection involves a piece of malicious code that is able to extract information from a database. In this way, the GRU got data related to "thousands of U.S. voters," according to the Mueller report.

An SQL injection is another common and well-known type of hacking attack.

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## Create Table

CREATE TABLE expression syntax:



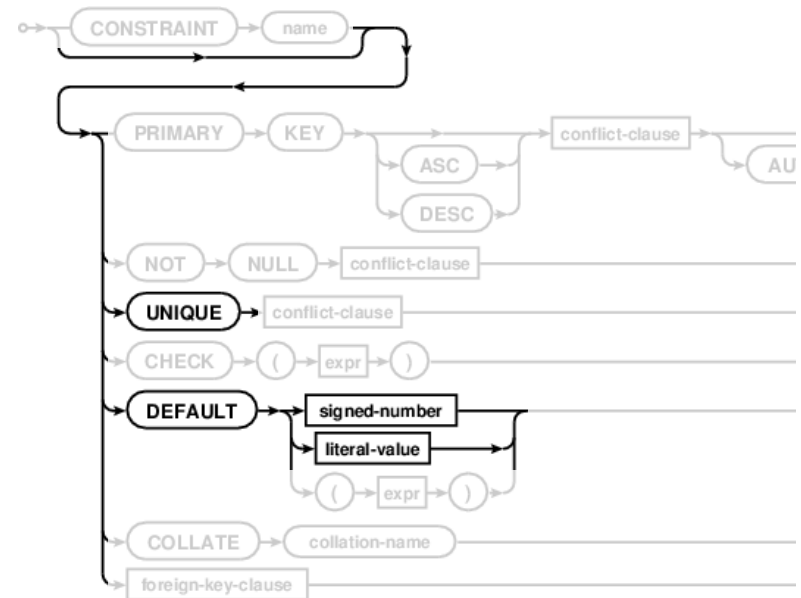
Examples:

```
CREATE TABLE numbers (n, note);
CREATE TABLE numbers (n UNIQUE, note);
CREATE TABLE numbers (n, note DEFAULT "No comment");
```

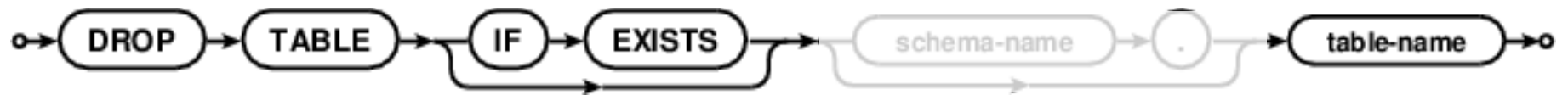
column-def:



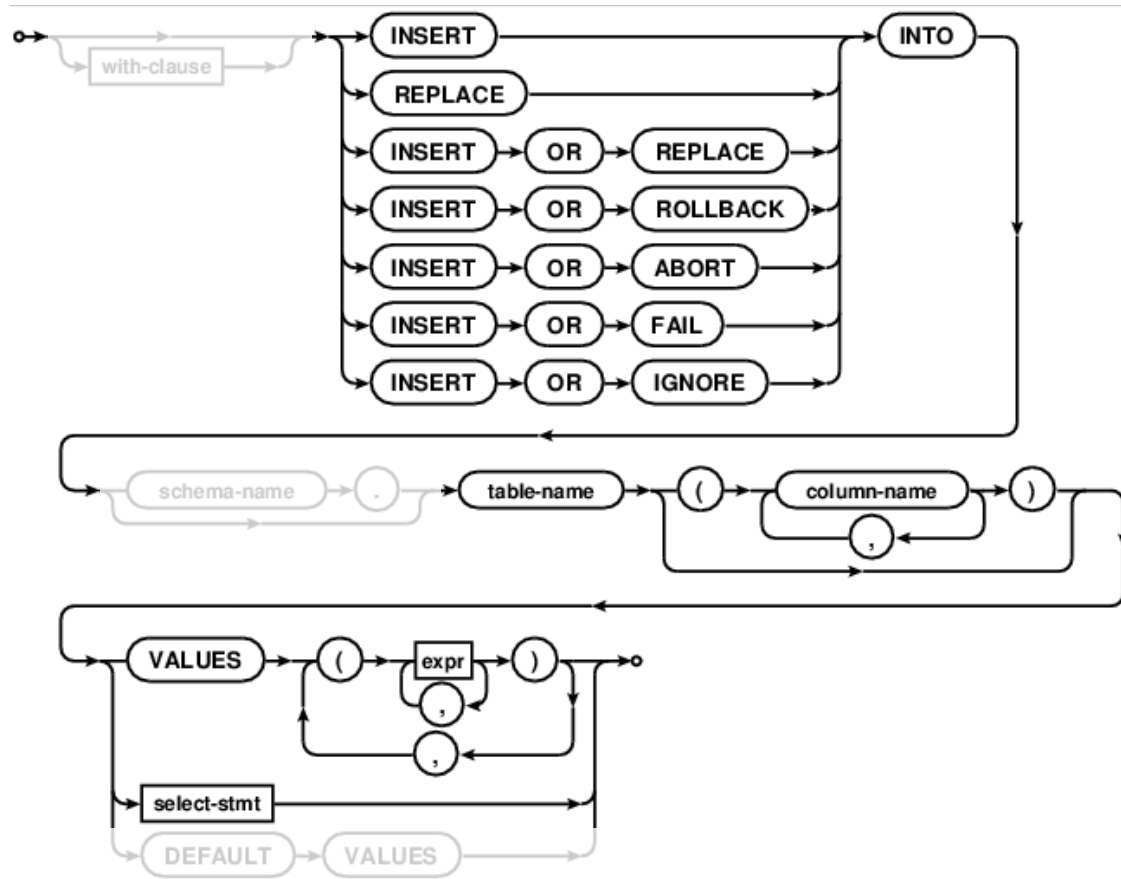
column-constraint:



## Drop Table



## Insert



For a table t with two columns...

To insert into one column:

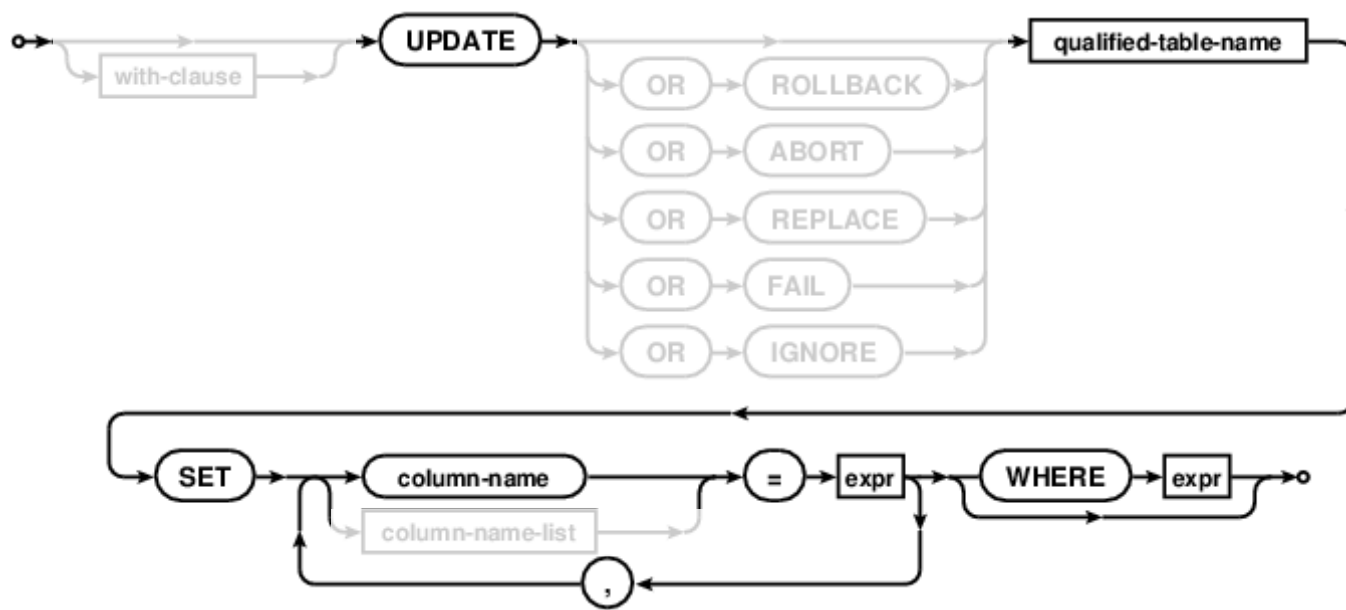
```
INSERT INTO t(column) VALUES (value);
```

To insert into both columns:

```
INSERT INTO t VALUES (value0, value1);
```

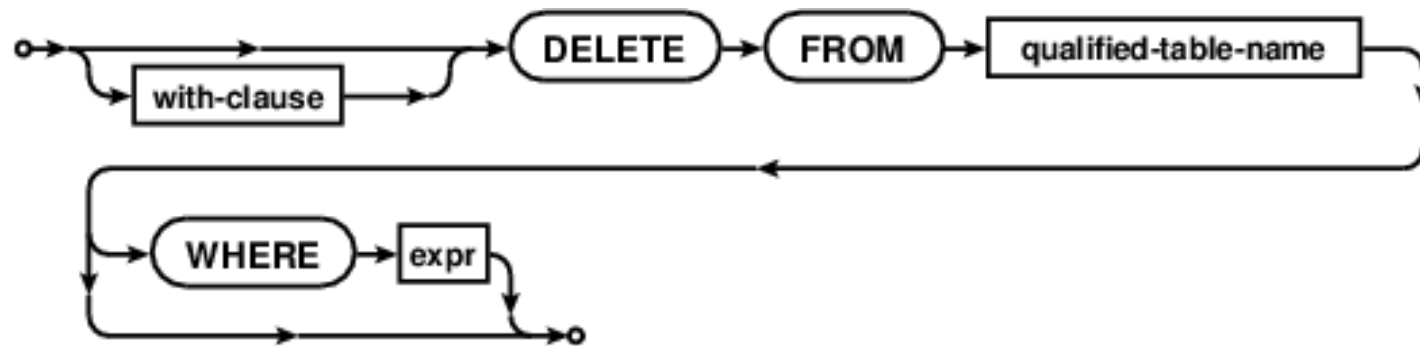
(Demo)

## Update



Update sets all entries in certain columns to new values, just for some subset of rows.

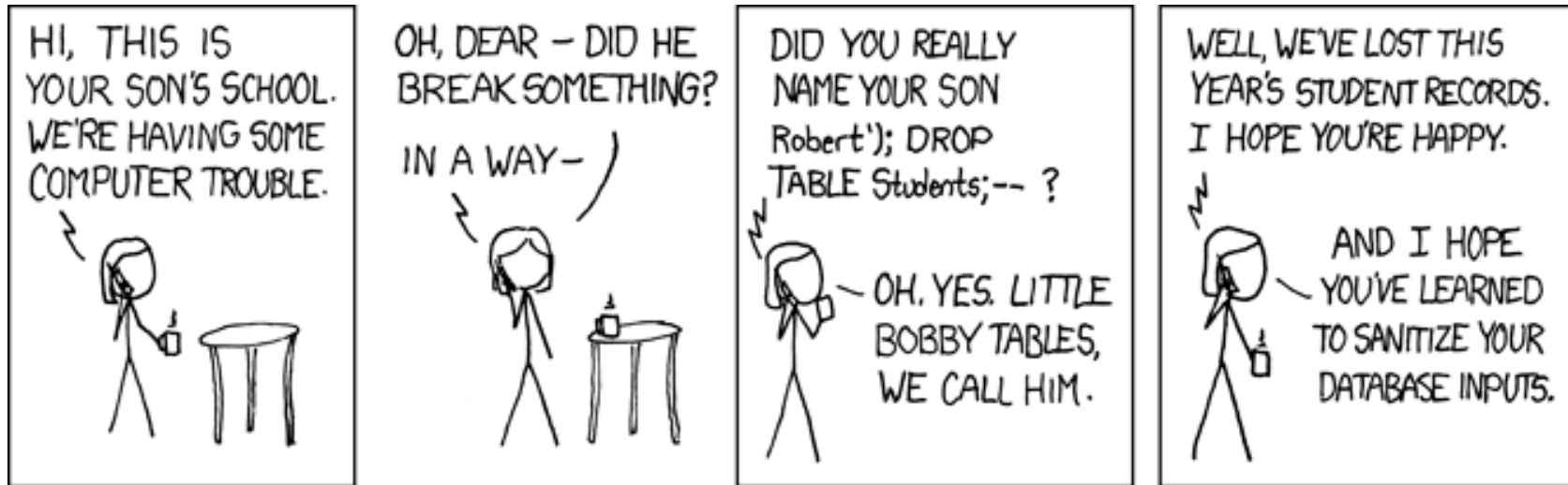
## Delete



Delete removes some or all rows from a table.

(Demo)

## A Program Vulnerable to a SQL Injection Attack



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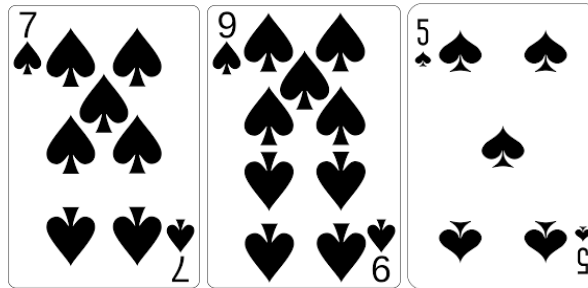
```
db.executescript(cmd) db.execute("INSERT INTO Students VALUES (?)", [name])  
  
INSERT INTO Students VALUES ('Robert'); DROP TABLE Students; --');  
INSERT INTO Students VALUES ('Robert'); DROP TABLE Students; --');
```

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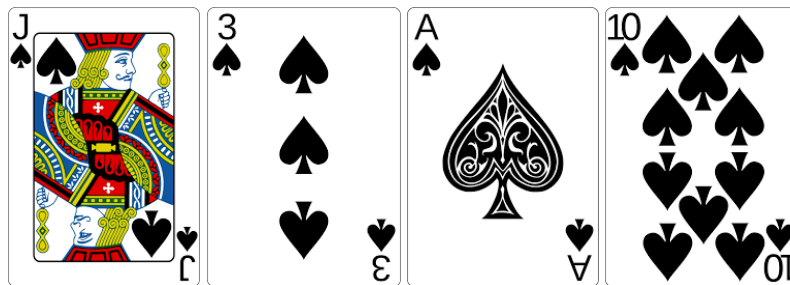


## Casino Blackjack

Player:



Dealer:



(Demo)