# Congressional Voting Record Database Project

**Overview**

The legislative branch of the U.S. federal government votes on hundreds of bills and measures each year and has had many different active members and parties over time. It is important for the U.S. government to keep track of their members, parties, rollcalls, and votes – it helps the public and other members of congress know what their representatives voted for to hold them accountable, and it helps the government keep attendance and track how voting patterns have changed over time.

In our project, we created a user interface to the congressional voting record database, found at <https://www.kaggle.com/voteview/congressional-voting-records>. The goal of the project is to provide software that will allow clerks in the U.S. federal legislative branch to easily track congressional voting records. The software allows clerks to record new votes, rollcalls, members, and parties and add them to a database, and also query the current database to search for past votes, rollcalls, members, and parties using certain criteria. Note that, although the database contains numerical dimensions that represent certain characteristics of a vote (how liberal or conservative a member or vote is), these require analysis by outside experts and are not used here. This project focuses on providing a useful tool for Senate and House clerks just for recording legislative branch activity and assumes that the numerical scores are updated independently.

**Functional Requirements:**

These functional requirements allow clerks to easily enter data and query data.

Add data functionality

* System must provide a navigable, readable graphical user interface
* User must be able to add data to any of the following tables of the database:
* Votes (HSall\_votes)
* Rollcalls (HSall\_rollcalls)
* Members (HSall\_members)
* Parties (HSall\_parties)
* System must require user to include all primary key values and important identifying information when adding data, to ensure quality of records
* User must be able to type in the necessary values for the record they are adding
* User must be able to query data from any table and view query in the GUI

Query database functionionality

* User must be provided a simple search option to query database entries that match just one certain variable, such as members of a certain congress, or votes in a certain chamber
* User must be provided an advanced search option that provides al …
* Participated or occurred in a certain date range
* Occurred in a specific congress and chamber (the two most relevant additional parameters to specify)
* Matches a member, vote, party, or rollcall that meets a certain criteria of the user’s choosing

**Schema**

This database contains four tables, or relations:

**Members**

HSall\_members(congress, chamber, icpsr, state\_icpsr, district\_code, state\_abbrev, party\_code, occupancy, last\_means, bioname, bioguide\_id, born, died, dim1, dim2, log\_likelihood, geo\_mean\_probability, number\_of\_votes, number\_of\_errors, conditional)

**Parties**

HSall\_parties(congress, chamber, party\_code, party\_name, n\_members, dim1\_median, dim2\_median, dim1mean, dim2mean)

**Rollcalls**

HSall\_rollcalls(congress, chamber, rollnumber, date, session, clerk\_rollnumber, mid\_1, mid\_2, spread\_1, spread\_2, log\_likelihood, bill\_number, vote\_result, vote\_desc, vote\_question, dtl\_desc)

**Votes**

HSall\_votes(congress, chamber, rollnumber, icpsr, cast\_code)