**Requirements Document**

Design an ER schema for keeping track of information about votes taken in the U.S. House of Representatives during the current two-year congressional session. The database needs to keep track of each U.S. state's Name (e.g., 'Texas', 'New York', 'Louisiana') and include the Region of the state (whose domain is {'Northeast', 'Midwest', 'Southeast', 'Southwest', 'West'}). Each Congress person in the House of Representatives is described by his or her Name, plus the District represented, the Start_date when the congressperson was first elected, and the political Party to which he or she belongs (whose domain is {'Republican', 'Democrat', 'Independent', 'Other'}). The database keeps track of each Bill (i.e., proposed law), including the Bill_name, the Date_of_vote on the bill, whether the bill Passed_or_failed (whose domain is {'Yes', 'No'}), and the Sponsor (the congressperson(s) who sponsored – that is, proposed – the bill). The database also keeps track of how each congressperson voted on each bill (domain of Vote attribute is {'Yes', 'No', 'Abstain', 'Absent'}).

Work in groups of no more than three and discuss pertinent constraints to the proposed system.

Draw an ER schema diagram for this application. State clearly any assumptions you make.

CSC 430/530 - In-class Exercise 2
ER Modeling

ROLE: *Software Analyst*

(*Please discuss with your team the following- You can use google to find the answers*)

1. How many members are there in the House of Representatives?

2. Can the number of congress persons vary by state? If so then what are number of congress persons per states (https://www.britannica.com/topic/United-States-House-of-Representatives-Seats-by-State-1787120)

3. How many bills can be passed during a 2-year congressional session?

DEVELOPER 1:

(*Given the requirements identify the entities*)

DEVELOPER 2:

(*Given the requirements identify the relationships*)

Entities:

| STATE |
| --- |
| Name<br>Region {'Northeast', 'Midwest', 'Southeast', 'Southwest', 'West'} |

| CONGRESS_PERSON |
| --- |
| Name<br>District<br>Start_Date<br>Party{'Republican', 'Democrat', 'Independent', 'Other'} |

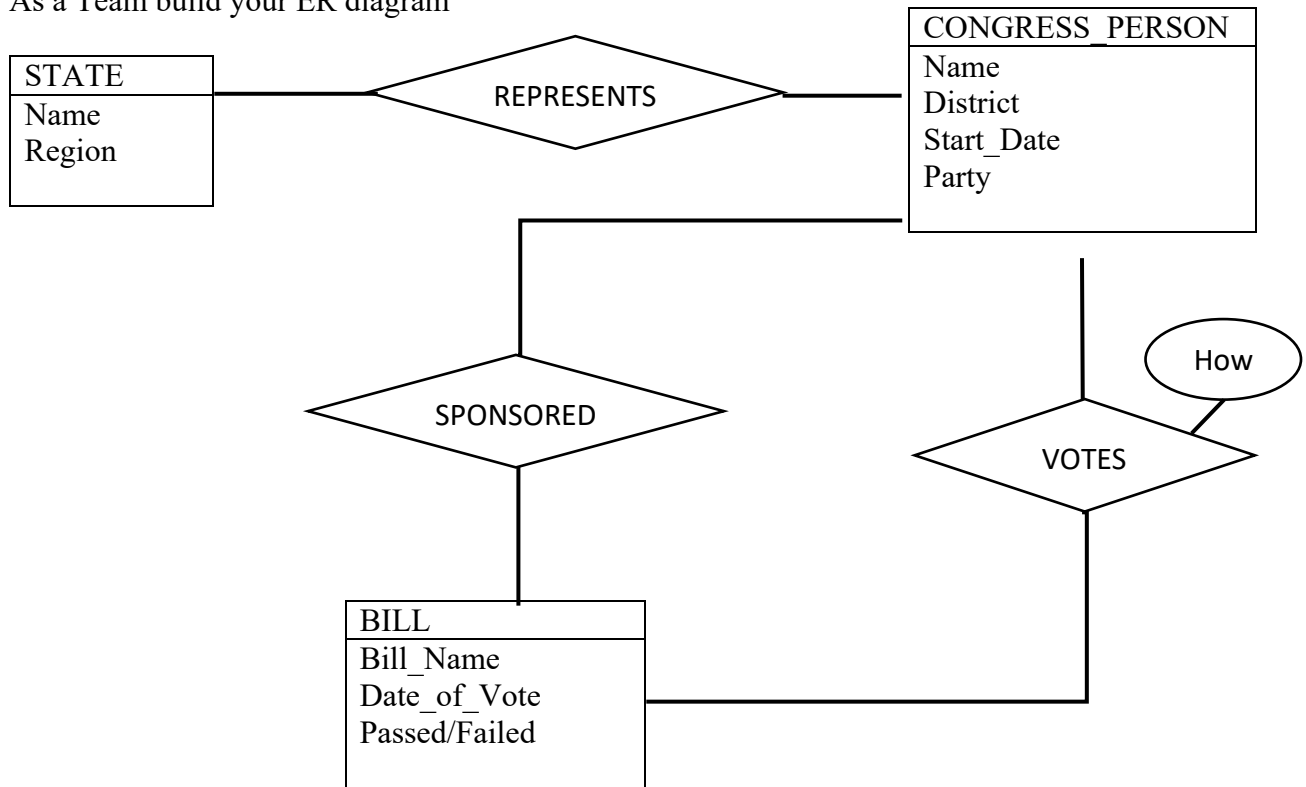| BILL |
| --- |
| Bill_Name<br>Date_of_Vote<br>Passed/Failed {'Yes', 'No'} |

Relationships:

REPRESENTS

| VOTES |
| --- |
| How {'Yes', 'No', 'Abstain', 'Absent' |

SPONSORED

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ER Modeling

ALL MEMBERS:
As a Team build your ER diagram

| STATE |
|---|
| Name |
| Region |

REPRESENTS

| CONGRESS_PERSON |
|---|
| Name |
| District |
| Start_Date |
| Party |

SPONSORED

How

VOTES

| BILL |
|---|
| Bill_Name |
| Date_of_Vote |
| Passed/Failed |

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STATE
Name
Region

(1,53)

REPRESENTS

(1,1)

CONGRESS_PERSON
Name
District
Start_Date
Party

(0, N)

SPONSORED

(1, N)

BILL
Bill_Name
Date_of_Vote
Passed/Failed

(M, M)

How

VOTES

(435, 435)