

BSCSE2002 : Tools in Data Science

Jan to Mar 2022

PROJECT 1

Released on 25-Feb-2022

Due Date for Submission **06-March-2022 at 23:59 hrs IST**

The Student has been provided with a dataset for this Project. They will have to use the tools and techniques learnt in this course and answer the below questions for their submission.

The Format of submission is as follows:

- A **.csv** file with Question numbers and answer written ([Refer this Document for more details](#))
- Please check the [Sample Submission file](#)
- Images for specific questions have to be uploaded as a response in the given form.
<https://forms.gle/GBSjLgypnFZU8Xtd6>

We will be evaluating both the **.csv** file and the uploaded images. Any formatting issue in the **.csv** file will result in zero marks for the relevant question(s).

Questions

- Q1 How many democrats did not vote?
- Q2 How many republicans voted Yea?
- Q3 What's the total number of Yea votes from all senators whose name starts with "B"?
- Q4 How many states voted all Yay?
- Q5 How many states had at least 1 non-voting senator?
- Q6 How many states have both Republican senators?
- Q7 How many states have both Republican and Democrat senators?
- Q8 How many Senators have their names starting with W?
- Q9 What is the votes ratio of Democrats' major decision to Republican's major decision ?
- Q10 What is the highest absolute difference in percentage between yea and nay senators among the different parties?
- Q11 How many Democrats voted Yea?
- Q12 How many states voted all Nay?

- Q13 How many states have both Democrat senators?
- Q14 How many senators did not vote?
- Q15 How many states had at least 1 senator not voted?
- Q16 Ratio of number of rows to the number of columns in your dataset?
- Q17 Plot the stacked barchart with the parties(x-axis) and number of votes(y-axis) with stacks as 'Yea' and 'Nay' ? (Submit in Google Form)
- Q18 Pie chart of Republican votes ? (Submit in Google Form)
- Q19 Plot the crosstab of Party and Yea/Nay as a heat map with the values (Submit in Google Form)
- Q20 Pie chart representing the number of states in which Democrats domination, Republican domination and Democrats, Republicans in equal ? (Submit in Google Form)