

This is a program to find vowels and consonants and a program to count minibuss passengers using JavaScript.

1. Vowel-Consonant

- Sort the letters based on their order of occurrence
- separate vowels and consonants
- process as lowercase (ignore white spaces)

To run the vowels-consonants file, execute the command `node vowel-consonant.js`

Here is the code of program vowel-consonant.js

```
```javascript
const prompt = require('prompt-sync')();

let inputString = prompt("Input one line of words (S): ")

function findVowels(text) {
 const vowels = "aeiouAEIOU";
 let result = '';

 for (let i = 0; i < text.length; i++) {
 if(vowels.includes(text[i])) {
 result += text[i].toLowerCase()
 }
 }
 return result;
}

function findConsonant(text) {
 const vowels = "aeiouAEIOU";
 let result = '';

 for (let i = 0; i < text.length; i++) {
 if(!vowels.includes(text[i])) {
 result += text[i].toLowerCase().replace(/g, "")
 }
 }
 return result;
}

let vowelsFound = findVowels(inputString)
```

```

let consonantFound = findConsonant(inputString)

console.log(`Vowel characters: ${vowelsFound}`)
console.log(`Consonant Characters: ${consonantFound}`)

...

```

The output will be approximately like this

```

● enigma@enigma-ThinkPad-X390:~/IdeaProjects/nawadata$ node vowel.js
Input one line of words (S): Next Case
Vowel characters: eae
Consonant Characters: nxtcs

```

## 2. PSBB ( Pembatasan Sosial Berskala Besar )

This is a wedding during the COVID-19 pandemic where the event only invited the families of both brides and grooms. They rented a number of mini busses to pick up the entire family to attend the wedding party.

However, during the COVID-19 pandemic, the government implemented a Large-Scale Social Restrictions (PSBB) program to reduce the impact of the virus's spread. Each minibus could only carry a maximum of 4 passengers.

The program created is to calculate the minimum number of buses they need to rent if all members of each family ride the same bus. (one bus cannot carry more than two families)

### **\*\*Input\*\***

- The first line contains an integer  $(n)$  — the number of families.
- The second line contains a sequence of integers. Each integer is separated by a space. The integers represent the number of family members.

### **\*\*Output\*\***

- Print a single number — the minimum number of buses required to transport the entire family to the wedding event.
- Print "Input must be equal to count of family" if the input number of families does not match the number of family members provided.

And this is the complete code of psbb.js

```

```javascript

const prompt = require('prompt-sync') ()

function miniBus() {
    let numFamilies = parseInt(prompt("Input the number of families :
")) ;

```

```

    let familyMembers = prompt("Input the number of members in the
family (separated by a space) : ").split(' ').map(Number);

    if (numFamilies !== familyMembers.length) {
        console.log("Input must be equal with count of family");
        return;
    }

    for (let i = 0; i < familyMembers.length - 1; i++) {
        for (let j = 0; j < familyMembers.length - 1 - i; j++) {
            if (familyMembers[j] < familyMembers[j + 1]) {
                let temp = familyMembers[j];
                familyMembers[j] = familyMembers[j + 1];
                familyMembers[j + 1] = temp;
            }
        }
    }

    let busCount = 0;
    let i = 0;
    let j = familyMembers.length - 1;

    while (i <= j) {
        if (familyMembers[i] + familyMembers[j] <= 4) {
            j--;
        }
        i++;
        busCount++;
    }

    console.log("Minimum bus required is : " + busCount);
}

miniBus();

...

```

To run the program, execute the command `node psbb.js`

Here is the output

```
● enigma@enigma-ThinkPad-X390:~/IdeaProjects/nawadata$ node psbb.js
Input the number of families : 2
Input the number of members in the family (separated by a space) : 1 2
Minimum bus required is : 1
● enigma@enigma-ThinkPad-X390:~/IdeaProjects/nawadata$ node psbb.js
Input the number of families : 5
Input the number of members in the family (separated by a space) : 1 3 3 2 4
Minimum bus required is : 4
```