Sentiment Calculation Exercise

Notes:

1. Include a README.md file with these details as the bare minimum. Feel free to add more data if you want to.
    a. What has been completed
    b. What is not completed
    c. Deployment steps
    d. Known bugs
    e. What would you add if you had more time
2. Invite us to your private Github repo with the solution and the README.md so that we can review your commit and git process along with your solution's accuracy.
3. Evaluation criteria
    a. Test scenarios considered and implemented.
    b. Adherence to code quality and standards.
    c. Respecting the JavaScript or TypeScript language's limitations and benefits.
    d. Clarity in code development and documentation process.
    e. Delivering production ready code, however you define that!

Problem statement:

Write a program which takes 1 input (Dimension = "location" or "department" or "designation") and generates a list of sorted sentiment scores grouped by segments in the given input dimension.

Example:
For Input: location,

Sample output:

Segment	**Sentiment Score**	**Participation Percentage**
Bangalore	4	100
Sydney	2	0
London	-3	50
SF	-5	25
Mumbai	-8	10

Sentiment Score = number of positive votes - number of negative votes.
Participation Percentage = Number of people Who voted / Number of people in Dimension * 100

In addition to the above,
Also calculate the overall sentiment of the company with the above example output - the overall sentiment would be "**-10**"(sum of each sentiment score in the vote)

Mapping of Sentiment to numeric value
5, 4 is positive
1, 2 is negative
3 is neutral

Sample data:

VOTES JSON:


```
[
  {
    "questionId": "Q1",
    "Vote": 5,
    "userId": "U1"
  },
  {
    "questionId": "Q1",
    "Vote": 5,
    "userId": "U2"
  },
  {
    "questionId": "Q1",
    "Vote": 2,
    "userId": "U3"
  },
  {
    "questionId": "Q1",
    "Vote": 3,
    "userId": "U4"
  },
  {
    "questionId": "Q1",
    "Vote": 2,
    "userId": "U5"
  },
  {
    "questionId": "Q1",
    "Vote": 3,
    "userId": "U6"
  },
  {
    "questionId": "Q1",
    "Vote": 1,
    "userId": "U7"
  },
  {
    "questionId": "Q1",
```

```
  "Vote": 4,
  "userId": "U8"
},
{
  "questionId": "Q1",
  "Vote": 3,
  "userId": "U9"
},
{
  "questionId": "Q1",
  "Vote": 5,
  "userId": "U10"
},
{
  "questionId": "Q1",
  "Vote": 4,
  "userId": "U11"
},
{
  "questionId": "Q1",
  "Vote": 1,
  "userId": "U12"
},
{
  "questionId": "Q1",
  "Vote": 4,
  "userId": "U13"
},
{
  "questionId": "Q1",
  "Vote": 5,
  "userId": "U14"
},
{
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  "Vote": 5,
  "userId": "U15"
},
{
  "questionId": "Q1",
  "Vote": 3,
  "userId": "U16"
},
{
  "questionId": "Q1",
  "Vote": 4,
  "userId": "U17"
},
{
  "questionId": "Q1",
  "Vote": 3,
  "userId": "U18"
},
{
  "questionId": "Q1",
  "Vote": 2,
  "userId": "U19"
```

```
},
{
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  "Vote": 2,
  "userId": "U20"
},
{
  "questionId": "Q2",
  "Vote": 5,
  "userId": "U1"
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{
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  "userId": "U4"
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{
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  "Vote": 4,
  "userId": "U5"
},
{
  "questionId": "Q2",
  "Vote": 4,
  "userId": "U6"
},
{
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  "Vote": 2,
  "userId": "U7"
},
{
  "questionId": "Q2",
  "Vote": 2,
  "userId": "U8"
},
{
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  "Vote": 5,
  "userId": "U9"
},
{
  "questionId": "Q2",
  "Vote": 1,
  "userId": "U10"
},
{
```

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  "Vote": 3,
  "userId": "U11"
},
{
  "questionId": "Q2",
  "Vote": 4,
  "userId": "U12"
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  "Vote": 5,
  "userId": "U18"
},
{
  "questionId": "Q2",
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  "userId": "U19"
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  "userId": "U20"
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{
  "questionId": "Q3",
  "Vote": 1,
  "userId": "U1"
},
{
  "questionId": "Q3",
  "Vote": 4,
```

```
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},
{
  "questionId": "Q3",
  "Vote": 5,
  "userId": "U3"
},
{
  "questionId": "Q3",
  "Vote": 2,
  "userId": "U4"
},
{
  "questionId": "Q3",
  "Vote": 2,
  "userId": "U5"
},
{
  "questionId": "Q3",
  "Vote": 3,
  "userId": "U6"
},
{
  "questionId": "Q3",
  "Vote": 5,
  "userId": "U7"
},
{
  "questionId": "Q3",
  "Vote": 1,
  "userId": "U8"
},
{
  "questionId": "Q3",
  "Vote": 2,
  "userId": "U9"
},
{
  "questionId": "Q3",
  "Vote": 1,
  "userId": "U10"
},
{
  "questionId": "Q3",
  "Vote": 1,
  "userId": "U11"
},
{
  "questionId": "Q3",
  "Vote": 2,
  "userId": "U12"
},
{
  "questionId": "Q3",
  "Vote": 4,
  "userId": "U13"
},
```

```
  {
    "questionId": "Q3",
    "Vote": 4,
    "userId": "U14"
  },
  {
    "questionId": "Q3",
    "Vote": 5,
    "userId": "U15"
  },
  {
    "questionId": "Q3",
    "Vote": 2,
    "userId": "U16"
  },
  {
    "questionId": "Q3",
    "Vote": 5,
    "userId": "U17"
  },
  {
    "questionId": "Q3",
    "Vote": 1,
    "userId": "U18"
  },
  {
    "questionId": "Q3",
    "Vote": 3,
    "userId": "U19"
  },
  {
    "questionId": "Q3",
    "Vote": 1,
    "userId": "U20"
  }
]
```


USER JSON:


```
[
  {
    "User": "U1",
    "location": "Bangalore",
    "designation": "Manager",
    "department": "Engg"
  },
  {
    "User": "U2",
    "location": "Sydney",
    "designation": "Manager",
    "department": "HR"
  },
  {
    "User": "U3",
    "location": "London",
    "designation": "Manager",
```

```
  "department": "Admin"
},
{
  "User": "U4",
  "location": "SF",
  "designation": "Manager",
  "department": "Ops"
},
{
  "User": "U5",
  "location": "Mumbai",
  "designation": "Manager",
  "department": "Engg"
},
{
  "User": "U6",
  "location": "Bangalore",
  "designation": "Developer",
  "department": "Engg"
},
{
  "User": "U7",
  "location": "Sydney",
  "designation": "Manager",
  "department": "HR"
},
{
  "User": "U8",
  "location": "London",
  "designation": "Manager",
  "department": "Admin"
},
{
  "User": "U9",
  "location": "Bangalore",
  "designation": "Manager",
  "department": "Ops"
},
{
  "User": "U10",
  "location": "Sydney",
  "designation": "Developer",
  "department": "Engg"
},
{
  "User": "U11",
  "location": "Bangalore",
  "designation": "Manager",
  "department": "HR"
},
{
  "User": "U12",
  "location": "SF",
  "designation": "Manager",
  "department": "Admin"
},
{
```

```
    "User": "U13",
    "location": "Mumbai",
    "designation": "Manager",
    "department": "Engg"
  },
  {
    "User": "U14",
    "location": "Sydney",
    "designation": "Manager",
    "department": "HR"
  },
  {
    "User": "U15",
    "location": "Bangalore",
    "designation": "Manager",
    "department": "Admin"
  },
  {
    "User": "U16",
    "location": "Sydney",
    "designation": "CEO",
    "department": "Engg"
  },
  {
    "User": "U17",
    "location": "London",
    "designation": "Manager",
    "department": "HR"
  },
  {
    "User": "U18",
    "location": "SF",
    "designation": "Manager",
    "department": "Admin"
  },
  {
    "User": "U19",
    "location": "Mumbai",
    "designation": "Manager",
    "department": "Ops"
  },
  {
    "User": "U20",
    "location": "Mumbai",
    "designation": "Manager",
    "department": "Engg"
  }
]
```