Software Engineer Challenge Question

Consider a dataset providing information on the functionality of infrastructure resources, for each water point it includes the name of village it is in and its functional state.

Implement a data processing module which takes a dataset URL as input and returns:

- The number of water points that are functional,
- The number of water points per community,
- The rank for each community by the percentage of broken water points.

There should be a top level object or function `calculate("http://...")`, which returns a data structure with the above information, something like:

```
{
  number_functional: …,
  number_water_points: {
    communityA: …,
  },
  community_ranking: …
}
```

But that's just a suggestion and we can think of alternative, maybe better, data structures to use.

We will use a water point dataset that contains many columns, the relevant ones are:

```
communities_villages, water_functioning
```

The data is at the the below URL:

```
https://raw.githubusercontent.com/onaio/ona-tech/master/data/water_points.json
```

When your solution is complete, upload it to github (you do not have a github account you may create a free one). Submit your solution by sending us a link to it on github.

Notes

- We are looking for clean, simple, testable, and well organized code written in Python, Clojure, JavaScript, or another language of your choosing.
- You should provide sufficient evidence that your solution is complete by, as a minimum, indicating that it works correctly against the provided dataset.
- Solutions should be completed and a link emailed to us within 4 days.
- If you have any questions please ask, jobs+challenge@ona.io