Notes:

1. There are two assignments below.
2. Deadline: Sunday, 28 August 2022.
3. You will be asked to show the code during the class on Monday (29 August 2022).
4. In case of doubts, assume things and proceed accordingly.

Assignment 1

There is a data set named 'Balance scale data' in UCI.

Link: https://archive.ics.uci.edu/ml/datasets/balance+scale

Load this data into your code by making use of Pandas Module.

Explore this data set by applying relevant functions from pandas on it. A few example exploration tasks are given below:

- Check the number of data points and features in the data.
- Find unique values for each column.
- Check the data types of values in each column.
- Check basic statistics of data.
- Add a new column in the data.
- Then drop this column just created.
- create a new column that has values found as a result of applying some operation on the existing columns
- Access elements using loc and iloc.
- Check if there are missing values. If yes, which column.

Assignment 2

Write a function `compute_dist()` that accepts a list of values as input and outputs a dictionary storing the distribution of the data represented by the list. Here, distribution means tracking how many times each element is appearing in the given list.

Ex Usage:

```
l1 = [3, 4, 2, 1, 5, 1, 2, 4, 3, 4]
d1 = compute_dist(l1)
```

d1 should be {1: 2, 2: 2, 3: 2, 4: 3, 5: 1}