

# Frequency Array.

int a[] = {7, 8, 6, 6, 5, 7, 10, 10, 7, 7, 5, 6, 8};

- first find maxm element
- then minimum element
- By doing this we can find How many different elements in the given array

max = 10 min = 5

Size of different element : `max - min + 1;`

- Make a new array of size different array

b = {0, 0, 0, 0, 0, 0} ---> this is `frequency array`

- I will increment on that index continuously by 1 where index and value from previous array are matched.

So new b = {2, 3, 4, 2, 0, 2};

Here Frequency array indicates :

value	(index) occurrence
5	(0) 2 times
6	(1) 3 times
7	(2) 4 times
8	(3) 2 times
9	(4) 0 times
10	(5) 2 times

## Code :-

```
class FrequencyArray{
    public static void main(String[] args) {
        int a[] = {7, 8, 6, 6, 5, 7, 10, 10, 7, 7, 5, 6, 8};
    }
    public static void generateFrequencyArray(int[] a){
        int max = a[0];
        int min = a[0];
        for(int x:a){
            if(x > max)
                max = x;
            else if(x < min)
                min = x;
        }
        int[] frq = new int[max - min + 1];
        for(int x:a){
            frq[x-min]++;
        }
    }
}
```