

**Q1. There are 50 dice. 20 of them are facing 4. Remaining 30 are facing 3. You can't see which dice is facing what number. Write pseudo code to separate these 50 dice into 2 groups, so that both groups have the same number of 4's.**

Solution:

//the sum of the opposite sides of a dice =7. So, if back=3 then face of the dice=4.

```
function group(back[50]: back of the dices)
    declare cluster1[40], cluster2[40]
    declare and set count=0,i=0,j=0;
    for i= 0 to i<50
        if count<10 then
            set cluster1[i]=back[i]
            if back[i]=3
                increment count
            end if
        else
            set cluster2[j]=back[i]
            increment j
        end if
        increment i
    end for
end
```

**Q2. A comma separated file(csv) has 5 columns and 10 rows. Write shell commands to extract the value of 3rd column 5th row and output the result into a text file.**

awk -F , 'FNR == 5 {print \$3}' Sample.csv > Result.txt

```
shk@unika:~/Downloads$ awk -F , 'FNR == 5 {print $3}' Sample.csv > Result.txt
shk@unika:~/Downloads$
```

Fig1: shell command

	A	B	C	D	E	F	G	H	I	J
1	1	Ram	Kathmandu	Civil Engineering	4thsem					
2	2	Shyam	Lalitpur	Computer Engineering	2ndsem					
3	3	Hari	Bhaktapur	Electrical Engineering	2ndsem					
4	4	Gita	Kathmandu	Computer Engineering	8thsem					
5	5	Sita	Bhaktapur	Electrical Engineering	4ndsem					
6	6	Anita	Kathmandu	Civil Engineering	4thsem					
7	7	Subham	Lalitpur	Civil Engineering	4thsem					
8	8	Sandhya	Bhaktapur	Electrical Engineering	6thsem					
9	9	Bob	Kathmandu	Civil Engineering	2ndsem					
10	10	Alex	Lalitpur	Computer Engineering	2ndsem					
11										
12										
13										
14										
15										
16										

Fig2: Sample.csv

Open Result.txt Save

~/Downloads

Bhaktapur

Fig3: Result.txt

**Q3. Create a React Native app to show weather for the current week. You can use any open api available for fetching weather data.**

// I used api.weatherunlocked.com, this site did not have Nepal's weather so I used London's latitude and longitude

The code for this is in the folder.

### Screenshots:

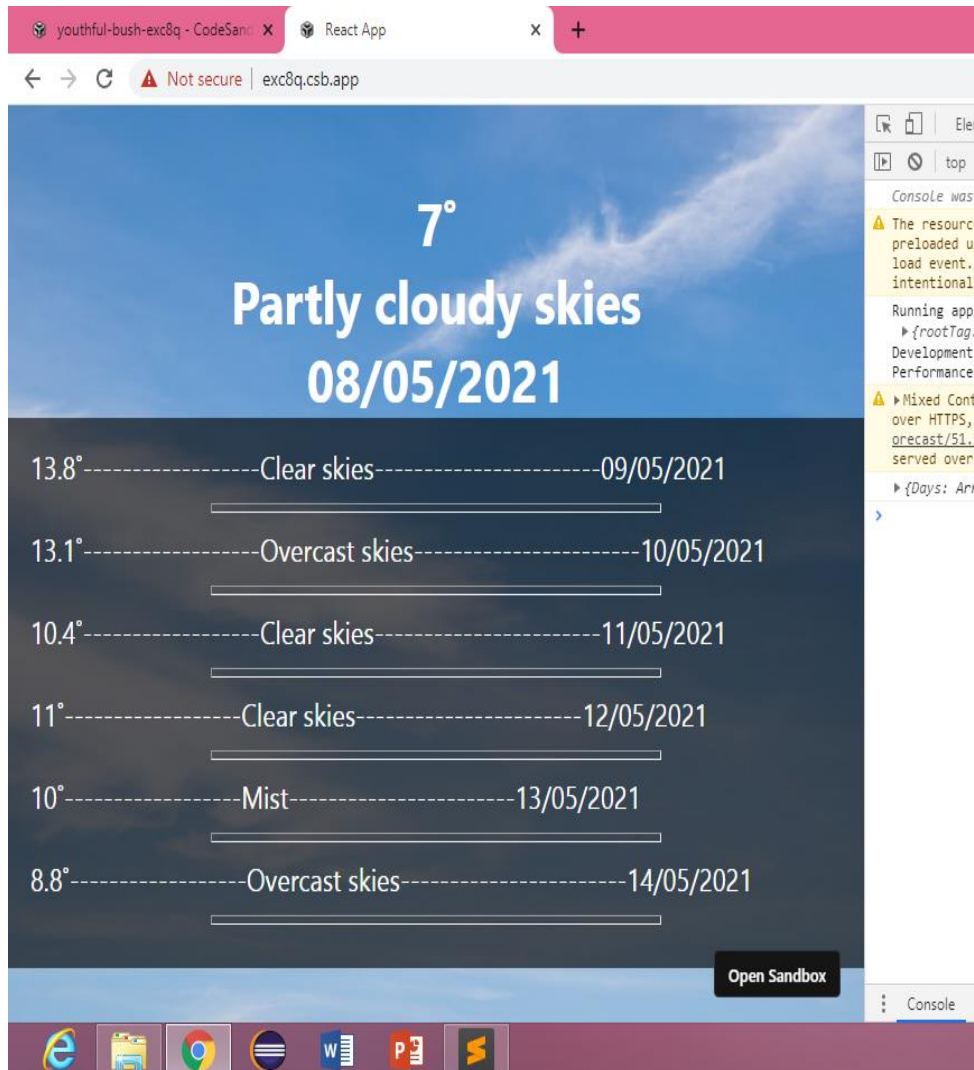


Fig4:Output

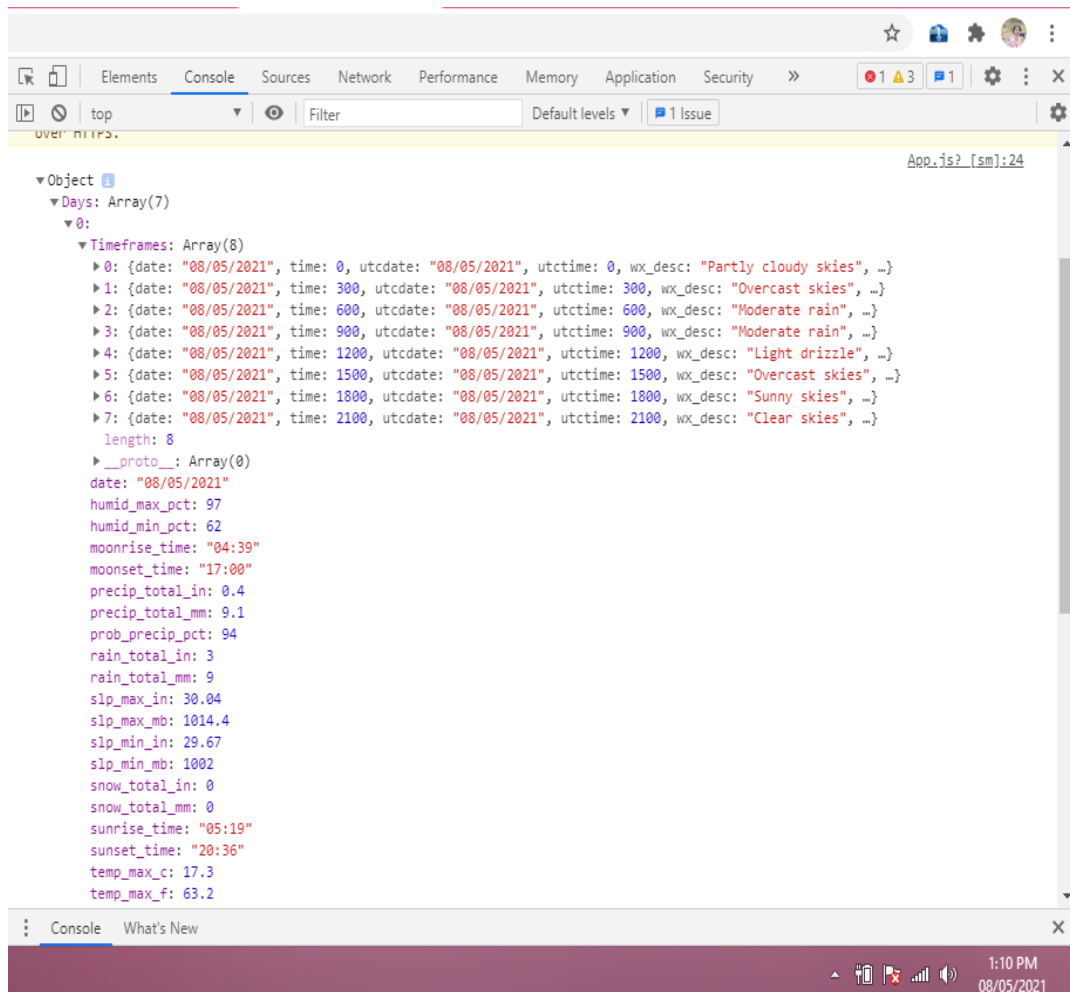


Fig: json fetched from api