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Unit Tests

```
function solution(D)
{
    //Create an array named as ‘weekdays’ to store all days of the week as element
    var weekdays = ['Sun','Mon','Tue','Wed','Thu','Fri','Sat'];

    //Create an object named as ‘map’ to store key as dayname and its value as
priority/sequence number
    var map ={'Mon' : 1, 'Tue' : 2,'Wed' : 3,'Thu' : 4,'Fri': 5,'Sat' : 6, 'Sun' : 7};

    //Create an empty object D1 to store a dayname as key and its value as sum of values on
that day
    var D1 = {};

    //Stores the value of previous key in the dictionary
    var lastkey;

    //Create an empty array ‘arr’ to store temporary data
    var arr =[];

    //Create an empty arrays ‘mkey’ and  ‘dkey’ to store days as elements.

    var mkey = [];
    var dkey = [];

    // mkey is used to store all keys from object ‘map’
    mkey = Object.keys(map);

    //Travers all the keys in the input dictionary D
    for(let key in D)
    {
        //store day for each key in D
        var d = new Date(key);

        //Use returned integer value as index for ‘weekdays’ array and
        //get an appropriate dayname for index
        var dayName = weekdays[d.getDay()];

            //Push that dayname in the ‘dkey’ array
            dkey.push(dayName);

            //If the dayname is present in the D1 dictionary, then take the sum of previous
            // value of dayname and current value of the dayname and store in the D1 with
dayname
            // as key and sum as its value
            if(dayName in D1)
            {
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                D1[dayName] = D1[dayName] + D[key];
            }
            else
            {
                //Otherwise, keep the key and value pair of Input Dictionary D as
                //it is in the Dictionary D1
                D1[dayName] = D[key];
            }
    }

    ////Travers keys from 0 to (the length of mkey -1) in the input dictionary D and repeeat
it
    for(let k=0; k< mkey.length ;k++)
    {
        //Declare match and initialize it to false
        var match = false;

        //Travers keys from 0 to (the length of dkey -1) in the input dictionary D and repeat
it
        for(let l=0; l<dkey.length ; l++)
        {
            //If  the dayname is present in the Input Dictionary then
            if ((mkey[k] == dkey[l]))
            {
                //assign true to 'match' variable
                match = true;

                //Break from the inner for loop
                break;
            }
        }

        //If the dayname is not present in the Input Dictionary D1 then
        if(!match)
        {
            //Declare 'difference' variable and initialize to zero value
            var difference=0;

            //Travers all the keys in the input dictionary D1
            for(let key in D1)
            {
                    //Declare 'first' variable and initialize to zero value
                    var first=0;

                    //Create object 'd1' to store day
                    var d1 = new Date(key);
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                    //Return integer value as day number using getDay() function on object
'd1'
                    //Use returned integer value as index  for weekday array and get an
appropriate day name for index
                    var dayName1 = weekdays[d1.getDay()];

                    //Assign zero value to lastkey
                    lastkey=0;

                    //Travers all the keys in the input dictionary map
                    for(let j in map)
                    {
                        //Assign jth key of dictionary D1 to variable 'first'
                        first = D1[j];

                        //Calculate the difference between value of previous key and value
                        //of the current key(mean of the value of previous key and current
key
                        // i.e there is same difference between each consecutive value of the
key)
                        difference = first - lastkey;

                        //Store the difference in the array 'arr'
                        arr.push(difference);

                        //If  dayname is present in the Input Dictionary then
                        if(dayName1 == j)
                        {
                            //continue it
                            continue;
                        }
                        else
                        {
                            //Otherwise(If the dayname is not present in the
                            // input dictionary D1 then ), add the difference in the value of
                            // previous key(i.e 'lastkey')
                            D1[j] = lastkey + arr[0];
                        }
                        //Assign jth value D1 to 'lastkey'
                        lastkey = D1[j];

                    }
            }
        }
    }

    //Create an empty array as 'tmp'
    let tmp = [];
```

```
    //Return the output dictionary starting from ‘Mon’ to ‘Sun’ as keys and
    // their respective values
    Object.keys(D1).forEach(function(key) {
    let value = D1[key];
    let index = map[key];
    tmp[index] = {
        key: key,
        value: value
    };
    });

    //Create an empty object as ‘orderedData’  to store mapped keys and its value
    let orderedData = {};
    tmp.forEach(function(obj) {
    orderedData[obj.key] = obj.value;
    });

    //Print the final result which is stored in 'orderedData'
    console.log(orderedData);

}

    //Menu provided to the user
    console.log('Menu => ');
    console.log('Input Dictionary');
    console.log("Case 1. D = {'2020-01-01':4, '2020-01-02':4,'2020-01-03':6, '2020-01-04':8,
'2020-01-05':2, '2020-01-06': -6, '2020-01-07':2, '2020-01-08':-2}");
    console.log("Case 2. D = {'2020-01-01':6, '2020-01-04':12, '2020-01-05':14, '2020-01-
06':2, '2020-01-07':4}");
    console.log();
    var choice = '1';

    //Switch.. case is used to execute the cases
    switch(choice)
    {
        case '1':
            //Accept input dictionary in the given format and store it in Dictionary D
            var D = {'2020-01-01':4, '2020-01-02':4,'2020-01-03':6, '2020-01-04':8, '2020-01-
05':2, '2020-01-06':-6, '2020-01-07':2,'2020-01-08':-2};

            //call the solution(D) function and prints the final result
            console.log('Case 1: Output Dictionary =>');
            solution(D);
            console.log();

        case '2':
            //Accept input dictionary in the given fomat and store it in Dictionary DD
```

```
            var DD = {'2020-01-01':6, '2020-01-04':12, '2020-01-05':14, '2020-01-06':2,
'2020-01-07':4};
            console.log('Case 2: Output Dictionary =>');

            //call the solution(DD) function and prints the final result
            solution(DD);

            //break the case 2
            break;
    }
```