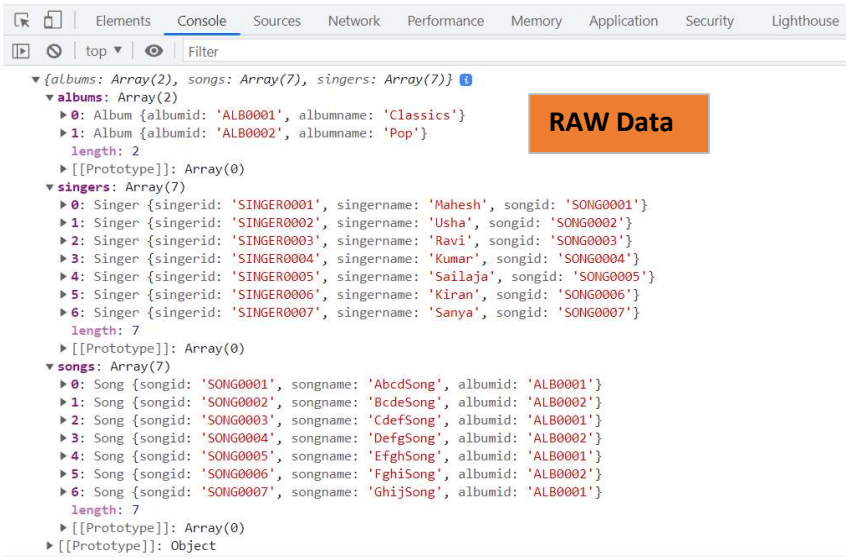
```
// masterdata has array of ALBUMs, array of SONGs, array of SINGERs
let masterdata = {
    'albums':[ { /* 0th ALBUM*/ } , { /*1st ALBUM*/ } ],
    'songs':[ {/*0th SONG*/}, {/*1st SONG*/}, {/*2nd SONG*/}, {/*3rd SONG*/}, {/*4th SONG*/}, {/*5th SONG*/}, {/*6th SONG*/} ],
'singers':[ {/*0th SINGER*/}, {/*1st SINGER*/}, {/*2nd SINGER*/}, {/*3rd SINGER*/}, {/*4th SINGER*/}, {/*5th SINGER*/}, {/* 6th SINGER*/}]
}
```

```
function Album(albumid, albumname){
    this.albumid=albumid;
    this.albumname=albumname;
}
function Song(songid, songname,albumid){
    this.songid=songid;
    this.songname=songname;
    this.albumid=albumid;
}
function Singer(singerid, singername, songid){
    this.singerid=singerid;
    this.singername=singername;
    this.songid=songid;
}
```

```
let album0 = new Album('ALB0001','Classics');
let album1 = new Album('ALB0002','Pop');

let song0 = new Song('SONG0001','AbcdSong','ALB0001');
let song1 = new Song('SONG0002','BcdeSong','ALB0002');
let song2 = new Song('SONG0003','CdefSong','ALB0001');
let song3 = new Song('SONG0004','DefgSong','ALB0002');
let song4 = new Song('SONG0005','EfghSong','ALB0001');
let song5 = new Song('SONG0006','FghiSong','ALB0002');
let song6 = new Song('SONG0007','GhijSong','ALB0001');

let singer0 = new Singer('SINGER0001','Mahesh','SONG0001');
let singer1 = new Singer('SINGER0002','Usha','SONG0002');
let singer2 = new Singer('SINGER0003','Ravi','SONG0003');
let singer3 = new Singer('SINGER0004','Kumar','SONG0004');
let singer4 = new Singer('SINGER0005','Sailaja','SONG0005');
let singer5 = new Singer('SINGER0006','Kiran','SONG0006');
let singer6 = new Singer('SINGER0007','Sanya','SONG0007');
```

```
48          // masterdata has array of ALBUMs, array of SONGs, array of SINGERs
49          let masterdata = {
50              'albums':[ album0, album1 ],
51              'songs':[ song0, song1, song2, song3, song4, song5, song6 ],
52              'singers':[ singer0, singer1, singer2, singer3, singer4, singer5, singer6]
53          }
54          console.log(masterdata);
```

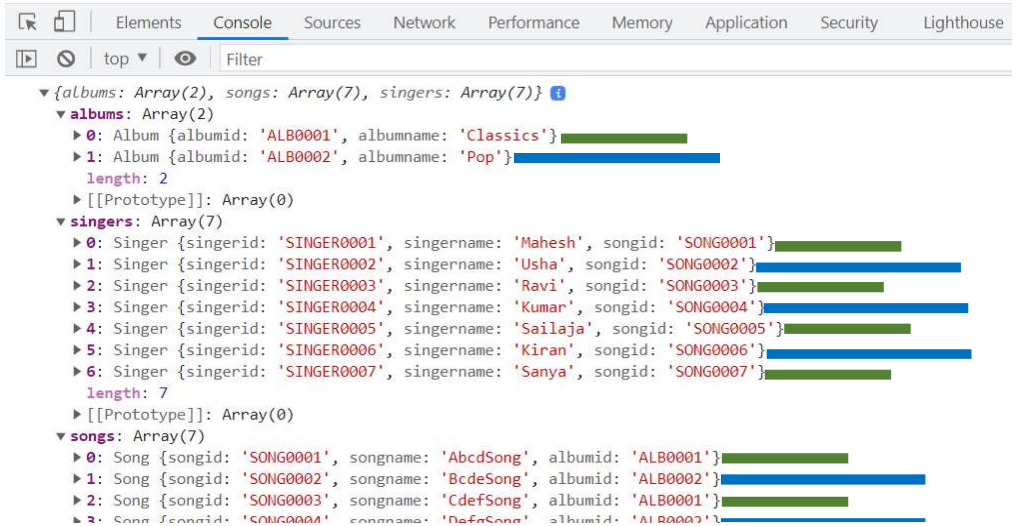


here, objects stored randomly
all GREEN records belong to 0thAlbum, and all BLUE records belong to 1stAlbum

by using transforming process,
related data can be grouped together

We can achieve this by wrangling data -

all GREEN objects group with 0th Album
all BLUE objects group with 1st Album



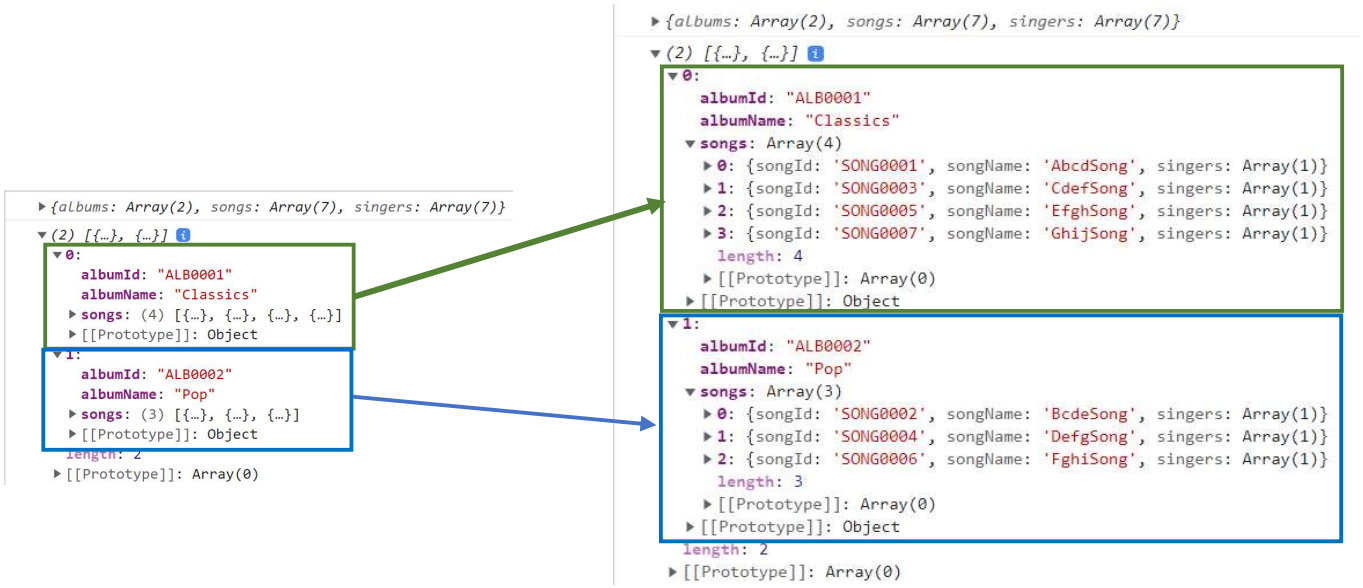
```
▶ 3: Song {songid: 'SONG0004', songname: 'DefgSong', albumid: 'ALB0002'}
▶ 4: Song {songid: 'SONG0005', songname: 'EfghSong', albumid: 'ALB0001'}
▶ 5: Song {songid: 'SONG0006', songname: 'FghiSong', albumid: 'ALB0002'}
▶ 6: Song {songid: 'SONG0007', songname: 'GhijSong', albumid: 'ALB0001'}
  length: 7
▶ [[Prototype]]: Array(0)
▶ [[Prototype]]: Object
```

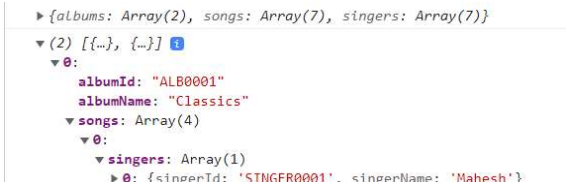
Transforming logic

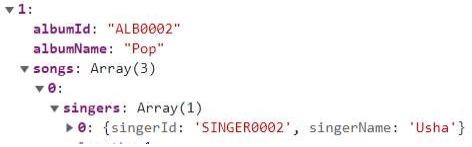
```
function transform(data){
    return data.albums.map(album => {
        return {
            'albumId':album.albumid,
            'albumName':album.albumname,
            'songs':data.songs
                .filter(song => album.albumid==song.albumid)
                .map(song=> {
                    return {
                        'songId':song.songid,
                        'songName':song.songname,
                        'singers':data.singers
                            .filter(singer=> song.songid==singer.songid)
                            .map(singer =>{
                                return {'singerId':singer.singerid,
                                        'singerName':singer.singername
                                }
                        })
                    }
                })
        }

    })
}
```

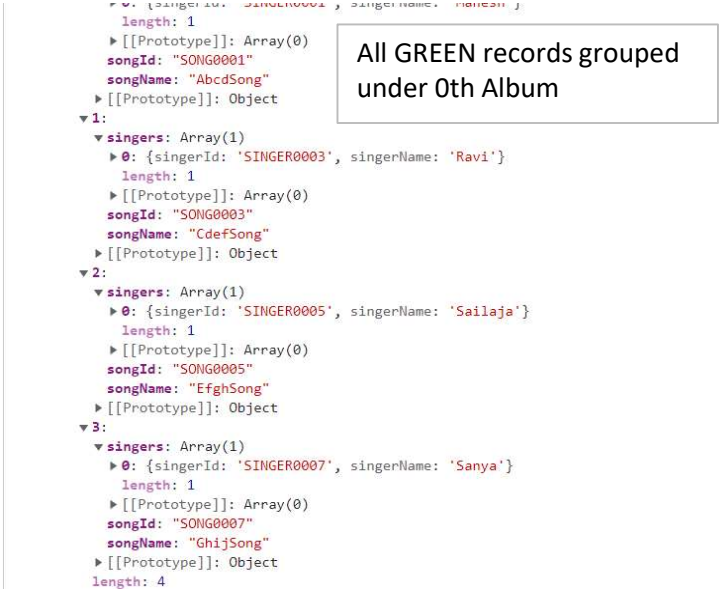
```
// masterdata has array of ALBUMs, array of SONGs, array of SINGERs
let masterdata = {
```

```
50          'albums':[ album0, album1 ],
51          'songs':[ song0, song1, song2, song3, song4, song5, song6 ],
52          'singers':[ singer0, singer1, singer2, singer3, singer4, singer5, singer6]
53      }
54      console.log(masterdata);
55      console.log(transform(masterdata));
```



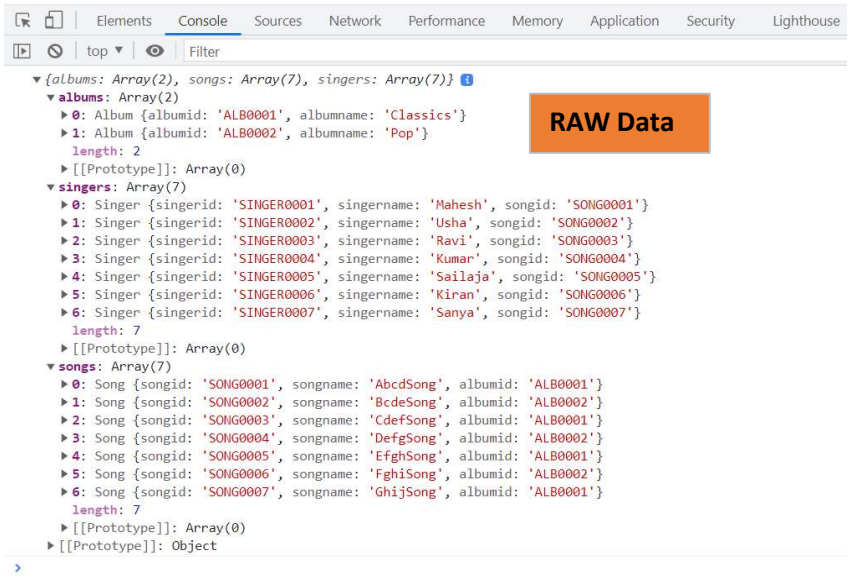






All GREEN records grouped under 0th Album

All BLUE records grouped under 1st Album



RAW Data