

# Arrays of Objects

```
const songList3 = [  
  {  
    title: 'Piano Sonata No. 3',  
    artist: 'Beethoven',  
  },  
  {  
    title: 'Piano Sonata No. 7',  
    artist: 'Beethoven',  
  },  
  {  
    title: 'Piano Sonata No. 10',  
    artist: 'Beethoven',  
  },  
];
```

array of objects

Array of 3 objects

array of objects

```
const songList3 = [
```

```
{  
  title: 'Piano Sonata No. 3',  
  artist: 'Beethoven',  
},  
{  
  title: 'Piano Sonata No. 7',  
  artist: 'Beethoven',  
},  
{  
  title: 'Piano Sonata No. 10',  
  artist: 'Beethoven',  
},  
];
```

single object

```
{  
  title: 'Piano Sonata No. 3',  
  artist: 'Beethoven',  
},
```

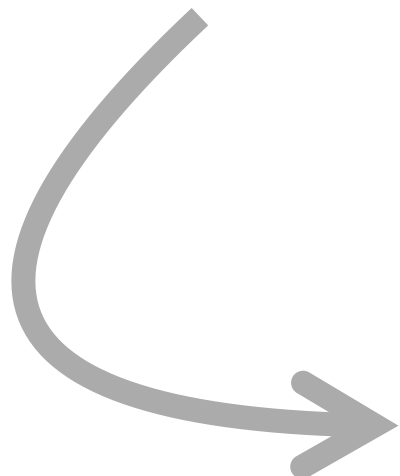
Song object:

- title
- artist

```
const songList3 = [  
  {  
    title: 'Piano Sonata No. 3',  
    artist: 'Beethoven',  
  },  
  {  
    title: 'Piano Sonata No. 7',  
    artist: 'Beethoven',  
  },  
  {  
    title: 'Piano Sonata No. 10',  
    artist: 'Beethoven',  
  },  
];
```

array of objects

```
for (let j = 0; j < songList3.length; j++) {  
  console.log('Song ' + j + ': Title: ' + songList3[j].title +  
    ': Artist: ' + songList3[j].artist);  
}
```



Song 0: Title: Piano Sonata No. 3: Artist: Beethoven  
Song 1: Title: Piano Sonata No. 7: Artist: Beethoven  
Song 2: Title: Piano Sonata No. 10: Artist: Beethoven

```

const playlistCollection = [
  {
    id: "01",
    title: "Beethoven Sonatas",
    songs: [
      {
        id: "04",
        title: "Piano Sonata No. 3",
        artist: "Beethoven",
      },
      {
        id: "05",
        title: "Piano Sonata No. 7",
        artist: "Beethoven",
      },
      {
        id: "06",
        title: "Piano Sonata No. 10",
        artist: "Beethoven",
      }
    ]
  },
  {
    id: "02",
    title: "Beethoven Concertos",
    songs: [
      {
        id: "07",
        title: "Piano Concerto No. 0",
        artist: "Beethoven",
      },
      {
        id: "08",
        title: "Piano Concerto No. 4",
        artist: "Beethoven",
      },
      {
        id: "09",
        title: "Piano Concerto No. 6",
        artist: "Beethoven",
      }
    ]
  },
  {
    id: "03",
    title: "Beethoven Variations",
    songs: [
      {
        id: "10",
        title: "Opus 34: Six variations on a theme in F major",
        artist: "Beethoven",
      },
      {
        id: "11",
        title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major",
        artist: "Beethoven",
      }
    ]
  }
]

```

array of objects

Array of 3 Objects

```

const playlistCollection = [
  {
    id: "01",
    title: "Beethoven Sonatas",
    songs: [
      {
        id: "04",
        title: "Piano Sonata No. 3",
        artist: "Beethoven",
      },
      {
        id: "05",
        title: "Piano Sonata No. 7",
        artist: "Beethoven",
      },
      {
        id: "06",
        title: "Piano Sonata No. 10",
        artist: "Beethoven",
      }
    ]
  },
  {
    id: "02",
    title: "Beethoven Concertos",
    songs: [
      {
        id: "07",
        title: "Piano Concerto No. 0",
        artist: "Beethoven",
      },
      {
        id: "08",
        title: "Piano Concerto No. 4",
        artist: "Beethoven",
      },
      {
        id: "09",
        title: "Piano Concerto No. 6",
        artist: "Beethoven",
      }
    ]
  },
  {
    id: "03",
    title: "Beethoven Variations",
    songs: [
      {
        id: "10",
        title: "Opus 34: Six variations on a theme in F major",
        artist: "Beethoven",
      },
      {
        id: "11",
        title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major",
        artist: "Beethoven",
      }
    ]
  }
]

```

array of objects

Array of 3 Objects

```
{  
  id: "01",  
  title: "Beethoven Sonatas",  
  songs: [  
    {  
      id: "04",  
      title: "Piano Sonata No. 3",  
      artist: "Beethoven",  
    },  
    {  
      id: "05",  
      title: "Piano Sonata No. 7",  
      artist: "Beethoven",  
    },  
    {  
      id: "06",  
      title: "Piano Sonata No. 10",  
      artist: "Beethoven",  
    }  
  ]  
}
```

Each object consists of

- id
- title
- songs - array of objects



```
{
  id: "01",
  title: "Beethoven Sonatas",
  songs: [
    {
      id: "04",
      title: "Piano Sonata No. 3",
      artist: "Beethoven",
    },
    {
      id: "05",
      title: "Piano Sonata No. 7",
      artist: "Beethoven",
    },
    {
      id: "06",
      title: "Piano Sonata No. 10",
      artist: "Beethoven",
    }
  ]
}
```

Each object consists of

- id
- title
- songs - array of objects

```
{  
  id: "04",  
  title: "Piano Sonata No. 3",  
  artist: "Beethoven",  
},
```

Song

- id
- title
- artist

```
const playlistCollection = [  
...  
];  
  
console.log (playlistCollection);
```

```
const playlistCollection = [  
{  
  id: "01",  
  title: "Beethoven Sonatas",  
  songs: [  
    {  
      id: "04",  
      title: "Piano Sonata No. 3",  
      artist: "Beethoven",  
    },  
    {  
      id: "05",  
      title: "Piano Sonata No. 7",  
      artist: "Beethoven",  
    },  
    {  
      id: "06",  
      title: "Piano Sonata No. 10",  
      artist: "Beethoven",  
    }  
  ]  
},  
{  
  id: "02",  
  title: "Beethoven Concertos",  
  songs: [  
    {  
      id: "07",  
      title: "Piano Concerto No. 0",  
      artist: "Beethoven",  
    },  
    {  
      id: "08",  
      title: "Piano Concerto No. 4",  
      artist: "Beethoven",  
    },  
    {  
      id: "09",  
      title: "Piano Concerto No. 6",  
      artist: "Beethoven",  
    }  
  ]  
},  
{  
  id: "03",  
  title: "Beethoven Variations",  
  songs: [  
    {  
      id: "10",  
      title: "Opus 34: Six variations on a theme in F major",  
      artist: "Beethoven",  
    },  
    {  
      id: "11",  
      title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major",  
      artist: "Beethoven",  
    }  
  ]  
}  
];
```



```
► [Object, Object, Object]
```

chrome console

```
const playlistCollection = [
```

```
{  
  id: "01",  
  title: "Beethoven Sonatas",  
  songs: [  
    {  
      id: "04",  
      title: "Piano Sonata No. 3",  
      artist: "Beethoven",  
    },  
    {  
      id: "05",  
      title: "Piano Sonata No. 7",  
      artist: "Beethoven",  
    },  
    {  
      id: "06",  
      title: "Piano Sonata No. 10",  
    },  
  ],  
}
```

```
const playlistCollection = [  
  ...  
];
```

```
for (let i = 0; i < playlistCollection.length; i++) {  
  console.log(playlistCollection[i]);  
}
```

```
for (let i = 0; i < playlistCollection.length; i++) {  
  console.log(playlistCollection[i]);  
}
```

```
}  
]  
},  
{  
  id: "03",  
  title: "Beethoven Variations",  
  songs: [  
    {  
      id: "10",  
      title: "Opus 34: Six variations on a theme in F major",  
      artist: "Beethoven",  
    },  
    {  
      id: "11",  
      title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major",  
      artist: "Beethoven",  
    },  
  ],  
}  
]  
}
```



```
► Object {id: "01", title: "Beethoven Sonatas", songs: Array(3)}  
► Object {id: "02", title: "Beethoven Concertos", songs: Array(3)}  
► Object {id: "03", title: "Beethoven Variations", songs: Array(2)}
```

chrome console

```
const playlistCollection = [  
...  
];  
  
for (let i = 0; i < playlistCollection.length; i++) {  
  console.log(playlistCollection[i].title)  
}
```

```
const playlistCollection = [  
{  
  id: "01",  
  title: "Beethoven Sonatas",  
  songs: [  
    {  
      id: "04",  
      title: "Piano Sonata No. 3",  
      artist: "Beethoven",  
    },  
    {  
      id: "05",  
      title: "Piano Sonata No. 7",  
      artist: "Beethoven",  
    },  
    {  
      id: "06",  
      title: "Piano Sonata No. 10",  
      artist: "Beethoven",  
    },  
  ],  
},  

```

```
    {  
      id: "03",  
      title: "Beethoven Variations",  
      songs: [  
        {  
          id: "10",  
          title: "Opus 34: Six variations on a theme in F major",  
          artist: "Beethoven",  
        },  
        {  
          id: "11",  
          title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major",  
          artist: "Beethoven",  
        },  
      ],  
    },  
  ],  
};
```

---

Beethoven Sonatas

---

Beethoven Concertos

---

Beethoven Variations

---

chrome console

```
const playlistCollection = [
```

```
{  
  id: "01",  
  title: "Beethoven Sonatas",  
  songs: [  
    {  
      id: "04",  
      title: "Piano Sonata No. 3",  
      artist: "Beethoven",  
    },  
    {  
      id: "05",  
      title: "Piano Sonata No. 7",  
      artist: "Beethoven",  
    },  
  ],  
}
```

```
const playlistCollection = [
```

```
...  
];
```

```
for (let i = 0; i < playlistCollection.length; i++) {  
  console.log(playlistCollection[i].title)  
  for (let j=0; j < playlistCollection[i].songs.length; j++) {  
    console.log(playlistCollection[i].songs[j]);  
  }  
}
```

```
  {  
    id: "03",  
    title: "Beethoven Variations",  
    songs: [  
      {  
        id: "10",
```

Beethoven Sonatas

▶ Object {id: "04", title: "Piano Sonata No. 3", artist: "Beethoven"}

▶ Object {id: "05", title: "Piano Sonata No. 7", artist: "Beethoven"}

▶ Object {id: "06", title: "Piano Sonata No. 10", artist: "Beethoven"}

Beethoven Concertos

▶ Object {id: "07", title: "Piano Concerto No. 0", artist: "Beethoven"}

▶ Object {id: "08", title: "Piano Concerto No. 4", artist: "Beethoven"}

▶ Object {id: "09", title: "Piano Concerto No. 6", artist: "Beethoven"}

Beethoven Variations

▶ Object {id: "10", title: "Opus 34: Six variations on a theme in F major", artist: "Beethoven"}

▶ Object {id: "11", title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major", artist: "Beethoven"}

chrome console

const playlistCollection = [

```
{
  id: "01",
  title: "Beethoven Sonatas",
  songs: [
    {
      id: "04",
      title: "Piano Sonata No. 3",
      artist: "Beethoven",
    },
    {
      id: "05",
      title: "Piano Sonata No. 7",
      artist: "Beethoven",
    },
  ],
}
```

const *playlistCollection* = [

...  
];

```
for (let i = 0; i < playlistCollection.length; i++) {
  console.log(playlistCollection[i].title)
  for (let j=0; j < playlistCollection[i].songs.length; j++) {
    console.log(playlistCollection[i].songs[j].title);
    console.log(playlistCollection[i].songs[j].artist);
  }
}
```

Beethoven Sonatas

Piano Sonata No. 3

Beethoven

Piano Sonata No. 7

Beethoven

Piano Sonata No. 10

Beethoven

Beethoven Concertos

Piano Concerto No. 0

Beethoven

Piano Concerto No. 4

Beethoven

Piano Concerto No. 6

Beethoven

Beethoven Variations

Opus 34: Six variations on a theme in F major

Beethoven

Opus 120: Thirty-three variations on a waltz by Diabelli in C major

Beethoven

on a theme in F major",

variations on a waltz by Diabelli in C major",

```
const playlistCollection = [
  {
    id: "01",
    title: "Beethoven Sonatas",
    songs: [
      {
        id: "04",
        title: "Piano Sonata No. 3",
        artist: "Beethoven",
      },
      {
        id: "05",
        title: "Piano Sonata No. 7",
        artist: "Beethoven",
      },
      {
        id: "06",
        title: "Piano Sonata No. 10",
        artist: "Beethoven",
      },
    ],
  },
  {
    id: "02",
    title: "Beethoven Concertos",
    songs: [
      {
        id: "07",
        title: "Piano Concerto No. 0",
        artist: "Beethoven",
      },
      {
        id: "08",
        title: "Piano Concerto No. 4",
        artist: "Beethoven",
      },
      {
        id: "09",
        title: "Piano Concerto No. 6",
        artist: "Beethoven",
      },
    ],
  },
  {
    id: "03",
    title: "Beethoven Variations",
    songs: [
      {
        id: "10",
        title: "Opus 34: Six variations on a theme in F major",
        artist: "Beethoven",
      },
      {
        id: "11",
        title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major",
        artist: "Beethoven",
      },
    ],
  },
];
```

```
▼ Array[3] ⓘ
  ▼ 0: Object
    id: "01"
    ▼ songs: Array[3]
      ▼ 0: Object
        artist: "Beethoven"
        id: "04"
        title: "Piano Sonata No. 3"
        ▶ __proto__: Object
      ▼ 1: Object
        artist: "Beethoven"
        id: "05"
        title: "Piano Sonata No. 7"
        ▶ __proto__: Object
      ▼ 2: Object
        artist: "Beethoven"
        id: "06"
        title: "Piano Sonata No. 10"
        ▶ __proto__: Object
        length: 3
        ▶ __proto__: Array[0]
        title: "Beethoven Sonatas"
        ▶ __proto__: Object
    ▼ 1: Object
      id: "02"
      ▼ songs: Array[3]
        ▼ 0: Object
          artist: "Beethoven"
          id: "07"
          title: "Piano Concerto No. 0"
          ▶ __proto__: Object
        ▼ 1: Object
          artist: "Beethoven"
          id: "08"
          title: "Piano Concerto No. 4"
          ▶ __proto__: Object
        ▼ 2: Object
          artist: "Beethoven"
          id: "09"
          title: "Piano Concerto No. 6"
          ▶ __proto__: Object
          length: 3
          ▶ __proto__: Array[0]
          title: "Beethoven Concertos"
          ▶ __proto__: Object
      ▼ 2: Object
        id: "03"
        ▼ songs: Array[2]
          ▼ 0: Object
            artist: "Beethoven"
            id: "10"
            title: "Opus 34: Six variations on a theme in F major"
            ▶ __proto__: Object
          ▼ 1: Object
            artist: "Beethoven"
            id: "11"
            title: "Opus 120: Thirty-three variations on a waltz by Diabelli in C major"
            ▶ __proto__: Object
            length: 2
            ▶ __proto__: Array[0]
            title: "Beethoven Variations"
            ▶ __proto__: Object
            length: 3
            ▶ __proto__: Array[0]
```