JSON

JSON Playlist Collection

- Javascript Object Notation

- This is a data file in JSON format

- It is a subset of javascript notation describing a data structure

playlist-store.json

```json
{
  "playlistCollection": [
    {
      "title": "Beethoven Sonatas",
      "songs": [
        {
          "title": "Piano Sonata No. 3",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Sonata No. 7",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Sonata No. 10",
          "artist": "Beethoven"
        }
      ]
    },
    {
      "title": "Beethoven Concertos",
      "songs": [
        {
          "title": "Piano Concerto No. 0",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Concerto No. 4",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Concerto No. 6",
          "artist": "Beethoven"
        }
      ]
    }
  ]
}
```

playlist-store.json

- A song object, containing:

  - **title** - a string

  - **artist** - a string

```json
{
  "title": "Piano Concerto No. 6",
  "artist": "Beethoven"
}
```

playlist-store.json

- Three song objects, each containing

  - **title** - a string

  - **artist** - a string

```json
{
  "title": "Piano Concerto No. 0",
  "artist": "Beethoven"
},
{
  "title": "Piano Concerto No. 4",
  "artist": "Beethoven"
},
{
  "title": "Piano Concerto No. 6",
  "artist": "Beethoven"
}
```

playlist-store.json

- **songs** - an array of three song objects, each containing

  - **title** - a string

  - **artist** - a string

```json
"songs": [
  {
    "title": "Piano Concerto No. 0",
    "artist": "Beethoven"
  },
  {
    "title": "Piano Concerto No. 4",
    "artist": "Beethoven"
  },
  {
    "title": "Piano Concerto No. 6",
    "artist": "Beethoven"
  }
]
```

playlist-store.json

- A **playlist** object, containing:

  - **title** - a string

  - **songs** - an array of objects, each containing

    - **title** - a string

    - **artist** - a string

```json
{
  "title": "Beethoven Concertos",
  "songs": [
    {
      "title": "Piano Concerto No. 0",
      "artist": "Beethoven"
    },
    {
      "title": "Piano Concerto No. 4",
      "artist": "Beethoven"
    },
    {
      "title": "Piano Concerto No. 6",
      "artist": "Beethoven"
    }
  ]
}
```

playlist-store.json

- 2 **playlist** objects, each containing:

  - **title** - a string

  - **songs** - an array of objects, each containing:

    - **title** - a string

    - **artist** - a string

```json
{
  "title": "Beethoven Sonatas",
  "songs": [
    {
      "title": "Piano Sonata No. 3",
      "artist": "Beethoven"
    },
    {
      "title": "Piano Sonata No. 7",
      "artist": "Beethoven"
    },
    {
      "title": "Piano Sonata No. 10",
      "artist": "Beethoven"
    }
  ]
},
{
  "title": "Beethoven Concertos",
  "songs": [
    {
      "title": "Piano Concerto No. 0",
      "artist": "Beethoven"
    },
    {
      "title": "Piano Concerto No. 4",
      "artist": "Beethoven"
    },
    {
      "title": "Piano Concerto No. 6",
      "artist": "Beethoven"
    }
  ]
}
```

playlist-store.json

- A **playlistCollection** object, containing:

  - an array of 2 **playlist** objects, each containing:

    - **title** - a string

    - **songs** - an array of objects, each containing:

      - **title** - a string

      - **artist** - a string

```json
{
  "playlistCollection": [
    {
      "title": "Beethoven Sonatas",
      "songs": [
        {
          "title": "Piano Sonata No. 3",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Sonata No. 7",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Sonata No. 10",
          "artist": "Beethoven"
        }
      ]
    },
    {
      "title": "Beethoven Concertos",
      "songs": [
        {
          "title": "Piano Concerto No. 0",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Concerto No. 4",
          "artist": "Beethoven"
        },
        {
          "title": "Piano Concerto No. 6",
          "artist": "Beethoven"
        }
      ]
    }
  ]
}
```
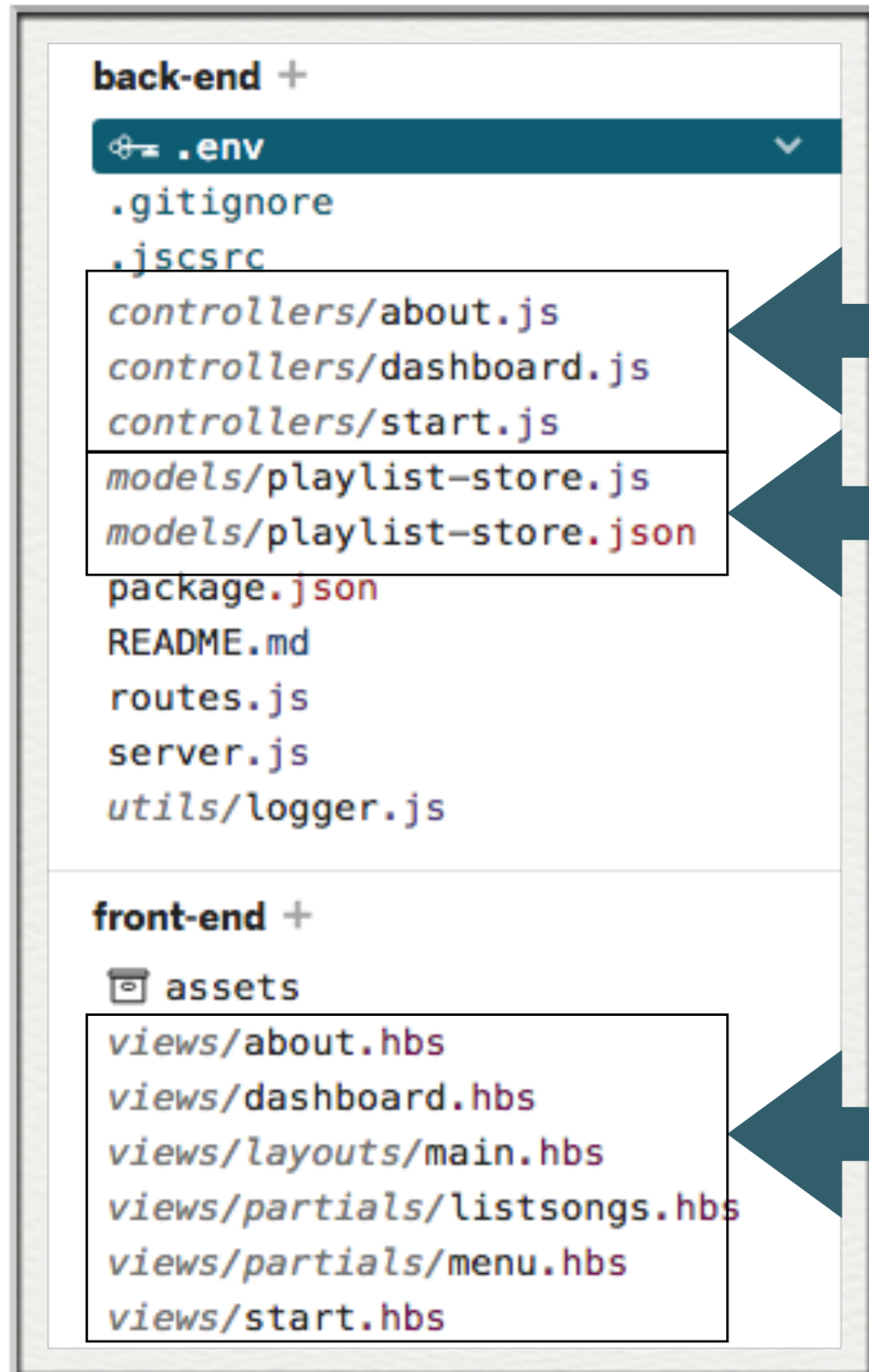
Beethoven Sonatas

Song	Artist
Piano Sonata No. 3	Beethoven
Piano Sonata No. 7	Beethoven
Piano Sonata No. 10	Beethoven

Beethoven Concertos

Song	Artist
Piano Concerto No. 0	Beethoven
Piano Concerto No. 4	Beethoven
Piano Concerto No. 6	Beethoven

playlist-1

```
back-end +
 ⊕= .env                          ∨
 .gitignore
 .jscsrc
 controllers/about.js
 controllers/dashboard.js
 controllers/start.js
 models/playlist-store.js
 models/playlist-store.json
 package.json
 README.md
 routes.js
 server.js
 utils/logger.js

front-end +
 🗔 assets
 views/about.hbs
 views/dashboard.hbs
 views/layouts/main.hbs
 views/partials/listsongs.hbs
 views/partials/menu.hbs
 views/start.hbs
```

- Model-View-Controller Pattern

- Controllers:

- Model Playlists stored in JSON

- Views:

Controller / Model

Load the model
(the playlists)

Place model in
viewData
object

Send viewData
to view

```javascript
'use strict';

const logger = require('../utils/logger');
const playlistCollection = require('../models/playlist-store.js');

const dashboard = {
  index(request, response) {
    logger.info('dashboard rendering');
    const viewData = {
      title: 'Playlist Dashboard',
      playlists: playlistCollection,
    };
    logger.info('about to render', playlistCollection);
    response.render('dashboard', viewData);
  },
};

module.exports = dashboard;
```

Controller/View

dashboard.hbs

```handlebars
{{> menu id="dashboard"}}

{{#each playlists}}
  <section class="ui segment">
    <h2 class="ui header">
      {{title}}
    </h2>
    <table class="ui table">
      <thead>
        <tr>
          <th>Song</th>
          <th>Artist</th>
        </tr>
      </thead>
      <tbody>
        {{#each songs}}
        <tr>
          <td>
            {{title}}
          </td>
          <td>
            {{artist}}
          </td>
        </tr>
        {{/each}}
      </tbody>
    </table>
  </section>
{{/each}}
```

dashboard.js

```javascript
index(request, response) {
  logger.info('dashboard rendering');
  const viewData = {
    title: 'Playlist Dashboard',
    playlists: playlistCollection,
  };
  logger.info('about to render', playlistCollection);
  response.render('dashboard', viewData);
},
```

- viewData send to the dashboard view

Model/View

```json
[
  {
    "title": "Beethoven Sonatas",
    "songs": [
      {
        "title": "Piano Sonata No. 3",
        "artist": "Beethoven"
      },
      {
        "title": "Piano Sonata No. 7",
        "artist": "Beethoven"
      },
      {
        "title": "Piano Sonata No. 10",
        "artist": "Beethoven"
      }
    ]
  },
  {
    "title": "Beethoven Concertos",
    "songs": [
      {
        "title": "Piano Concerto No. 0",
        "artist": "Beethoven"
      },
      {
        "title": "Piano Concerto No. 4",
        "artist": "Beethoven"
      },
      {
        "title": "Piano Concerto No. 6",
        "artist": "Beethoven"
      }
    ]
  }
]
```

```handlebars
{{> menu id="dashboard"}}

{{#each playlists}}
  <section class="ui segment">
    <h2 class="ui header">
      {{title}}
    </h2>
    <table class="ui table">
      <thead>
        <tr>
          <th>Song</th>
          <th>Artist</th>
        </tr>
      </thead>
      <tbody>
        {{#each songs}}
        <tr>
          <td>
            {{title}}
          </td>
          <td>
            {{artist}}
          </td>
        </tr>
        {{/each}}
      </tbody>
    </table>
  </section>
{{/each}}
```

Loop through each playlist object

output the title

• loop though each song in each playlist

• output title + artist