# Views

## 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. 1 | Beethoven |
| Piano Concerto No. 12 | Beethoven |
| Piano Concerto No. 23 | Beethoven |

extends · set · list · list · menu · listsongs`

# Playlist Views

## http://localhost:9000/dashboard

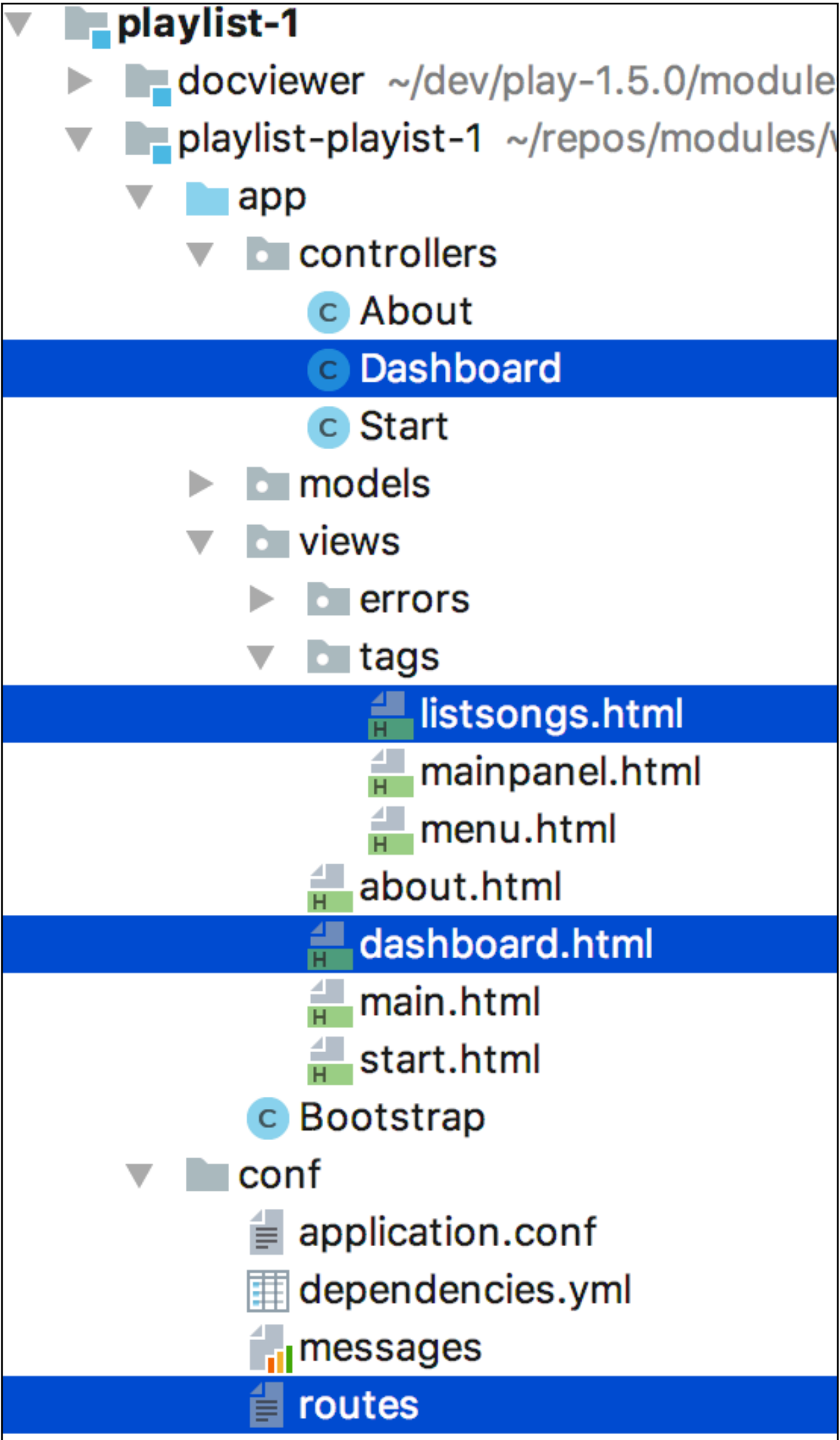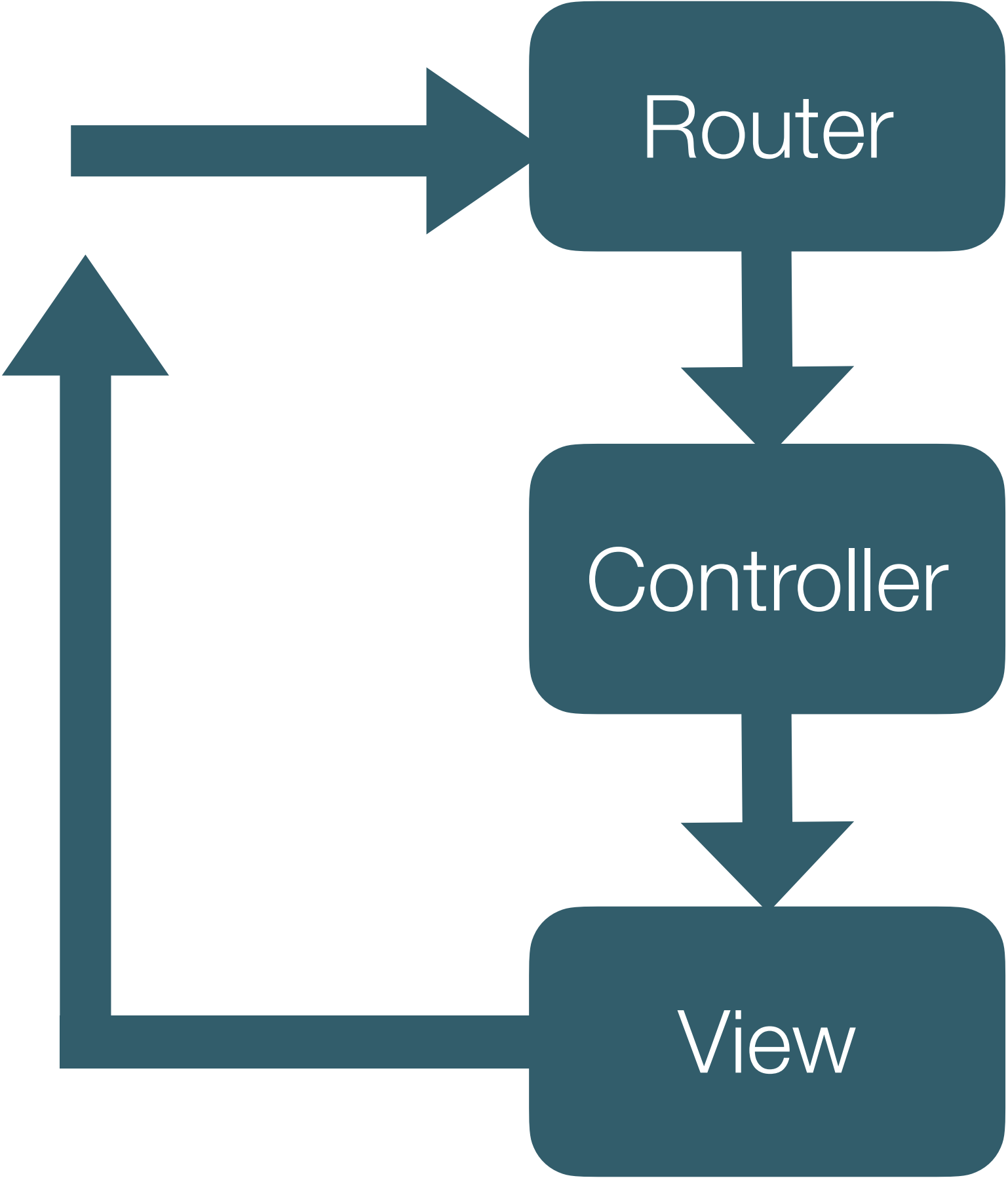**Playlist**                                              Dashboard     About

### 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. 1 | Beethoven |
| Piano Concerto No. 12 | Beethoven |
| Piano Concerto No. 23 | Beethoven |

http://localhost:9000/dashboard



| Router |
| Controller |
| View |

playlist-1
▼ 📁 playlist-1
  ▶ 📁 docviewer ~/dev/play-1.5.0/module
  ▼ 📁 playlist-playlist-1 ~/repos/modules/
    ▼ 📁 app
      ▼ 📁 controllers
        ⓒ About
        ⓒ Dashboard
        ⓒ Start
      ▶ 📁 models
      ▼ 📁 views
        ▶ 📁 errors
        ▼ 📁 tags
          listsongs.html
          mainpanel.html
          menu.html
        about.html
        dashboard.html
        main.html
        start.html
      ⓒ Bootstrap
    ▼ 📁 conf
      application.conf
      dependencies.yml
      messages
      routes

| GET | /dashboard | Dashboard.index | routes |

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# Static Version

### Dashboard.java

```java
public class Dashboard extends Controller
{
  public static void index()
  {
    Logger.info("Rendering Dashboard");
    render ("dashboard.html");
  }
}
```

### dashboard.html

```
#{extends 'main.html' /}
#{set title:'Dashboard' /}

#{menu id:"dashboard"/}

<section class="ui segment">
  <h2 class="ui header">
    Beethoven Sonatas
  </h2>
  #{listsongs/}
</section>
```
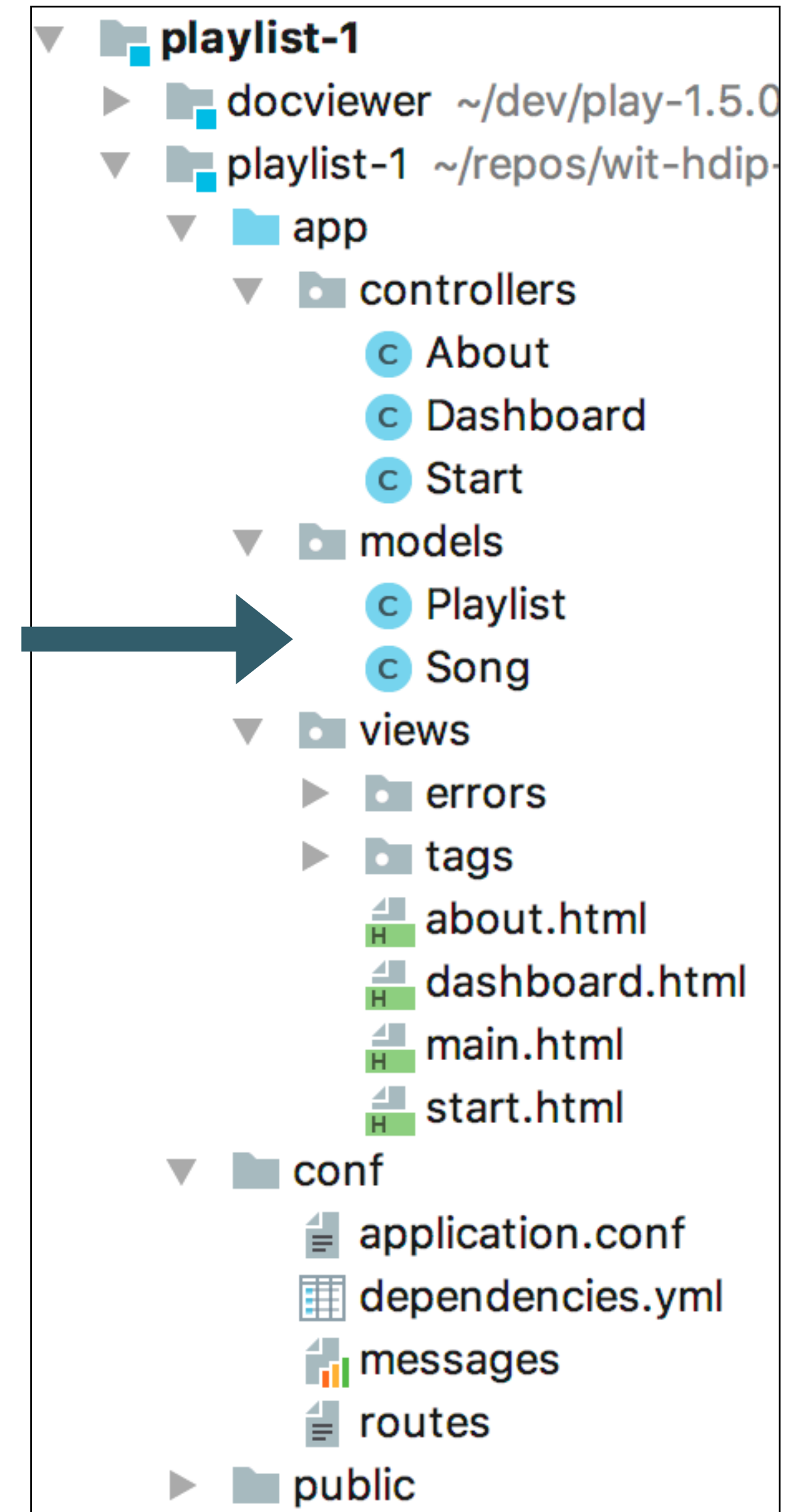
### listsongs.html

```html
<table class="ui fixed table">
  <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
    </tr>
  </thead>
<tbody>
  <tr>
    <td>
      Piano Sonata No. 3
    </td>
    <td>
      Beethoven
    </td>
  </tr>
  <tr>
    <td>
      Piano Sonata No. 7
    </td>
    <td>
      Beethoven
    </td>
  </tr>
  <tr>
    <td>
      Piano Sonata No. 10
    </td>
    <td>
      Beethoven
    </td>
  </tr>
</tbody>
</table>
```
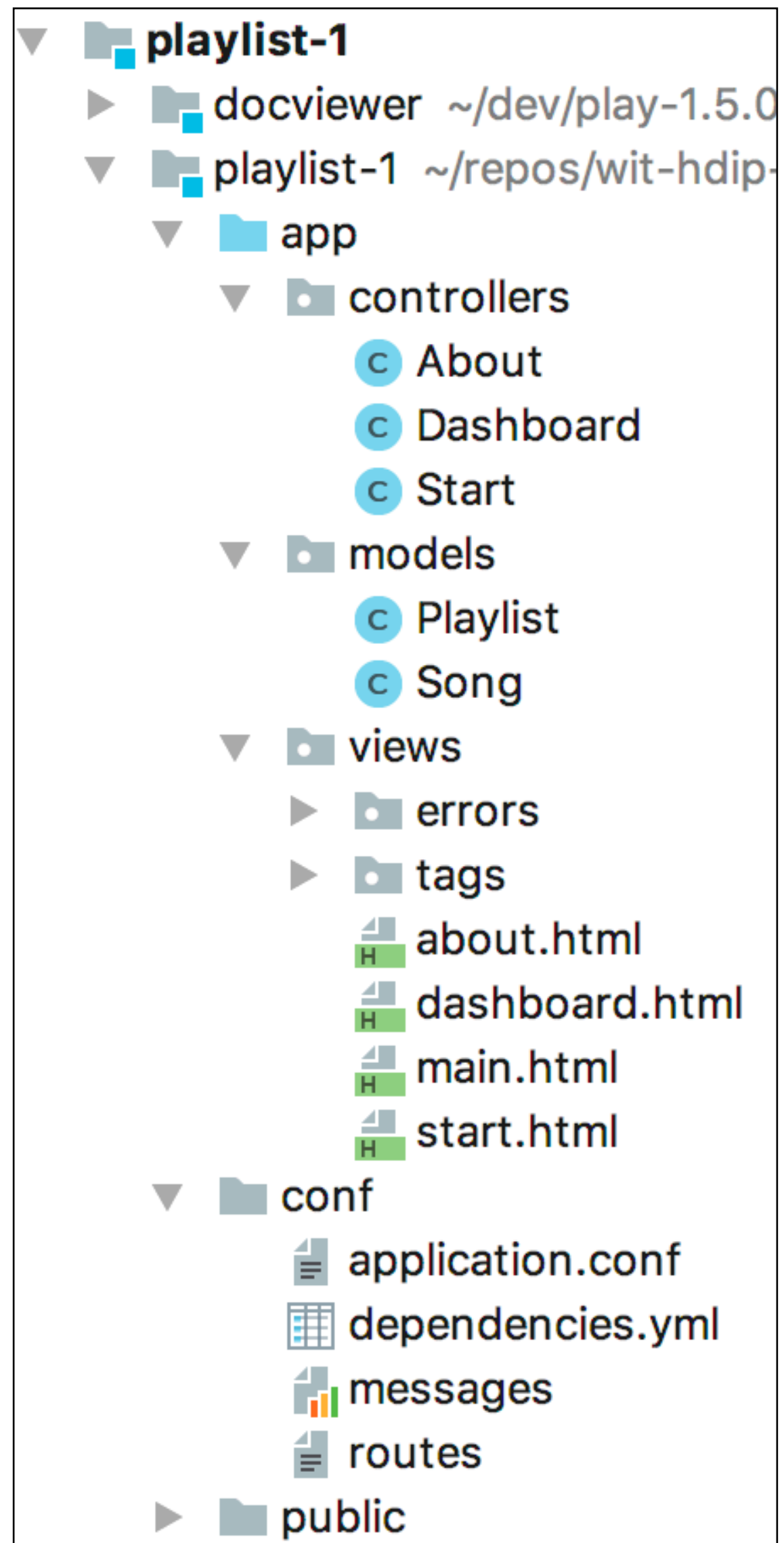
### Beethoven Sonatas

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

### Beethoven Concertos

| Song | Artist |
| --- | --- |
| Piano Concerto No. 1 | Beethoven |
| Piano Concerto No. 12 | Beethoven |
| Piano Concerto No. 23 | Beethoven |

# Model Playlist in Application

Models Package
Contains Simple Java
Class for Song &
Playlist

# Song & Playlist

```java
package models;

public class Song
{

  public String title;
  public String artist;

  public Song(String title, String artist)
  {
    this.title = title;
    this.artist = artist;
  }
}
```

```java
package models;

import java.util.ArrayList;
import java.util.List;

public class Playlist
{

  public String title;
  public List<Song> songs = new ArrayList<Song>();

  public Playlist(String title)
  {
    this.title = title;
  }
}
```

# One To Many Relationship

```java
package models;

import java.util.ArrayList;
import java.util.List;

public class Playlist
{
  public String title;
  public List<Song> songs = new ArrayList<Song>();

  public Playlist(String title)
  {
    this.title = title;
  }
}
```
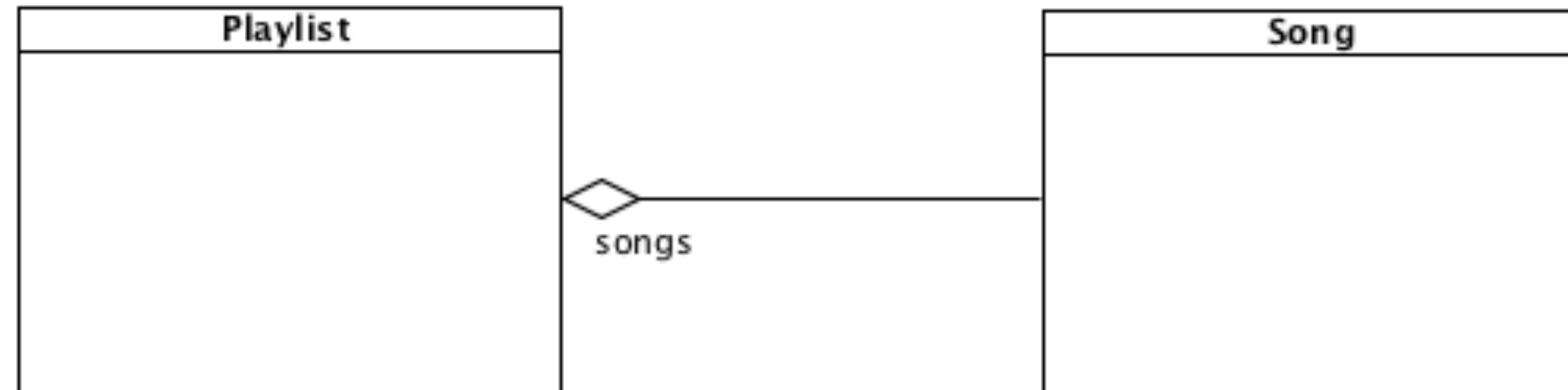
```java
package models;

public class Song
{
  public String title;
  public String artist;

  public Song(String title, String artist)
  {
    this.title = title;
    this.artist = artist;
  }
}
```

# Creating Model Objects

Create a playlist with 3 songs

Send the playlist to the view

```java
public class Dashboard extends Controller
{
  public static void index() {
    Logger.info("Rendering Dashboard");

    Song s1 = new Song("Piano Sonata No. 3", "Beethoven");
    Song s2 = new Song("Piano Sonata No. 7", "Beethoven");
    Song s3 = new Song("Piano Sonata No. 10", "Beethoven");
    Playlist playlist = new Playlist("Beethoven Sonatas");
    playlist.songs.add (s1);
    playlist.songs.add (s2);
    playlist.songs.add (s3);

    render ("dashboard.html", playlist);
  }
}
```

```java
public class Dashboard extends Controller
{
  public static void index() {
    Logger.info("Rendering Dashboard");

    Song s1 = new Song("Piano Sonata No. 3", "Beethoven");
    Song s2 = new Song("Piano Sonata No. 7", "Beethoven");
    Song s3 = new Song("Piano Sonata No. 10", "Beethoven");
    Playlist playlist = new Playlist("Beethoven Sonatas");
    playlist.songs.add (s1);
    playlist.songs.add (s2);
    playlist.songs.add (s3);

    render ("dashboard.html", playlist);
  }
}
```

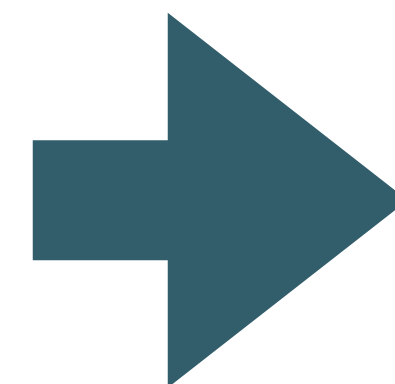dashboard.html

```java
package models;

public class Playlist
{
  public String title;
  public List<Song> songs = new ArrayList<Song>();

  public Playlist(String title)
  {
    this.title = title;
  }
}
```
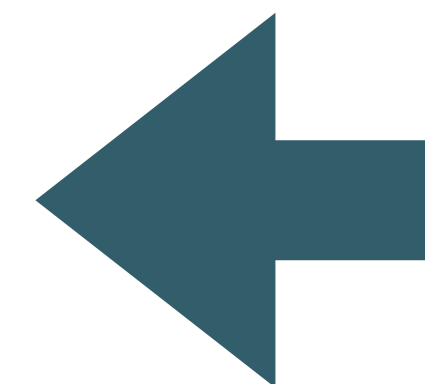
```html
#{extends 'main.html' /}
#{set title:'Dashboard' /}

#{menu id:"dashboard"/}

<section class="ui segment">
  <h2 class="ui header">
    ${playlist.title}
  </h2>
  #{listsongs playlist:playlist/}
</section>
```

${playlist.title}

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# Iterating through a list

```java
public class Dashboard extends Controller
{
  public static void index() {
    Logger.info("Rendering Dashboard");

    Song s1 = new Song("Piano Sonata No. 3", "Beethoven");
    Song s2 = new Song("Piano Sonata No. 7", "Beethoven");
    Song s3 = new Song("Piano Sonata No. 10", "Beethoven");
    Playlist playlist = new Playlist("Beethoven Sonatas");
    playlist.songs.add (s1);
    playlist.songs.add (s2);
    playlist.songs.add (s3);

    render ("dashboard.html", playlist);
  }
}
```

listsongs.html

```html
#{extends 'main.html' /}
#{set title:'Dashboard' /}

#{menu id:"dashboard"/}

<section class="ui segment">
  <h2 class="ui header">
    ${playlist.title}
  </h2>
  #{listsongs playlist:playlist/}
</section>
```

```html
<table class="ui fixed table">
  <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
    </tr>
  </thead>
  <tbody>
    #{list items:_playlist.songs, as:'song'}
    <tr>
      <td>
        ${song.title}
      </td>
      <td>
        ${song.artist}
      </td>
    </tr>
    #{/list}
  </tbody>
</table>
```

```
#{extends 'main.html' /}
#{set title:'Dashboard' /}

#{menu id:"dashboard"/}

<section class="ui segment">
  <h2 class="ui header">
    ${playlist.title}
  </h2>
  #{listsongs playlist:playlist/}
</section>
```

| Song | Artist |
|------|--------|
| Piano Concerto No. 1 | Beethoven |
| Piano Concerto No. 12 | Beethoven |
| Piano Concerto No. 23 | Beethoven |

```
<table class="ui fixed table">
  <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
    </tr>
  </thead>
  <tbody>
    #{list items:_playlist.songs, as:'song'}
    <tr>
      <td>
        ${song.title}
      </td>
      <td>
        ${song.artist}
      </td>
    </tr>
    #{/list}
  </tbody>
</table>
```

playlist accessed via
"_playlist" identifier

for loop to iterate
through each song in
the array

# Multiple Playlists

```java
public class Dashboard extends Controller
{
  public static void index() {
    Logger.info("Rendering Dashboard");

    Song s1 = new Song("Piano Sonata No. 3", "Beethoven");
    Song s2 = new Song("Piano Sonata No. 7", "Beethoven");
    Song s3 = new Song("Piano Sonata No. 10", "Beethoven");
    Playlist p1 = new Playlist("Beethoven Sonatas");
    p1.songs.add (s1);
    p1.songs.add (s2);
    p1.songs.add (s3);

    Song s4 = new Song("Piano Concerto No. 1", "Beethoven");
    Song s5 = new Song("Piano Concerto No. 12", "Beethoven");
    Song s6 = new Song("Piano Concerto No. 23", "Beethoven");
    Playlist p2 = new Playlist("Beethoven Concertos");
    p2.songs.add (s4);
    p2.songs.add (s5);
    p2.songs.add (s6);

    List<Playlist> playlists = new ArrayList<Playlist>();
    playlists.add(p1);
    playlists.add(p2);

    render ("dashboard.html", playlists);
  }
}
```

**An array of 2 playlists passed to view**

### 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. 1 | Beethoven |
| Piano Concerto No. 12 | Beethoven |
| Piano Concerto No. 23 | Beethoven |

```java
public class Dashboard extends Controller
{
  public static void index() {
    Logger.info("Rendering Dashboard");

    Song s1 = new Song("Piano Sonata No. 3", "Beethoven");
    Song s2 = new Song("Piano Sonata No. 7", "Beethoven");
    Song s3 = new Song("Piano Sonata No. 10", "Beethoven");
    Playlist p1 = new Playlist("Beethoven Sonatas");
    p1.songs.add (s1);
    p1.songs.add (s2);
    p1.songs.add (s3);

    Song s4 = new Song("Piano Concerto No. 1", "Beethoven");
    Song s5 = new Song("Piano Concerto No. 12", "Beethoven");
    Song s6 = new Song("Piano Concerto No. 23", "Beethoven");
    Playlist p2 = new Playlist("Beethoven Concertos");
    p2.songs.add (s4);
    p2.songs.add (s5);
    p2.songs.add (s6);

    List<Playlist> playlists = new ArrayList<Playlist>();
    playlists.add(p1);
    playlists.add(p2);

    render ("dashboard.html", playlists);
  }
}
```



```
#{extends 'main.html' /}
#{set title:'Dashboard' /}

#{menu id:"dashboard"/}

#{list items:playlists, as:'playlist'}
  <section class="ui segment">
    <h2 class="ui header">
      ${playlist.title}
    </h2>
    #{listsongs playlist:playlist/}
  </section>
#{/list}
```

```java
public static void index() {
  Logger.info("Rendering Dashboard");
  //...
  List<Playlist> playlists = new ArrayList<Playlist>();
  playlists.add(p1);
  playlists.add(p2);

  render ("dashboard.html", playlists);
}
```

```
#{extends 'main.html' /}
#{set title:'Dashboard' /}

#{menu id:"dashboard"/}

#{list items:playlists, as:'playlist'}
  <section class="ui segment">
   <h2 class="ui header">
     ${playlist.title}
   </h2>
   #{listsongs playlist:playlist/}
  </section>
#{/list}
```

Iterate through the playlists array

Output the playlist name

Pass the entire playlist to the listsongs partial

```java
public static void index() {
    Logger.info("Rendering Dashboard");
    //...
    List<Playlist> playlists = new ArrayList<Playlist>();
    playlists.add(p1);
    playlists.add(p2);

    render ("dashboard.html", playlists);
}
```

```html
#{extends 'main.html' /}
#{set title:'Dashboard' /}

#{menu id:"dashboard"/}

#{list items:playlists, as:'playlist'}
  <section class="ui segment">
    <h2 class="ui header">
      ${playlist.title}
    </h2>
    #{listsongs playlist:playlist/}
  </section>
#{/list}
```

**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. 1 | Beethoven |
| Piano Concerto No. 12 | Beethoven |
| Piano Concerto No. 23 | Beethoven |

```html
<table class="ui fixed table">
  <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
    </tr>
  </thead>
  <tbody>
    #{list items:_playlist.songs, as:'song'}
      <tr>
        <td>
          ${song.title}
        </td>
        <td>
          ${song.artist}
        </td>
      </tr>
    #{/list}
  </tbody>
</table>
```

# Views



## 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. 1 | Beethoven |
| Piano Concerto No. 12 | Beethoven |
| Piano Concerto No. 23 | Beethoven |

extends · set · list · list ·
menu · listsongs`