

# 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

# Playlist Views

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

# Static Version

All  
information in  
html page

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

```
<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

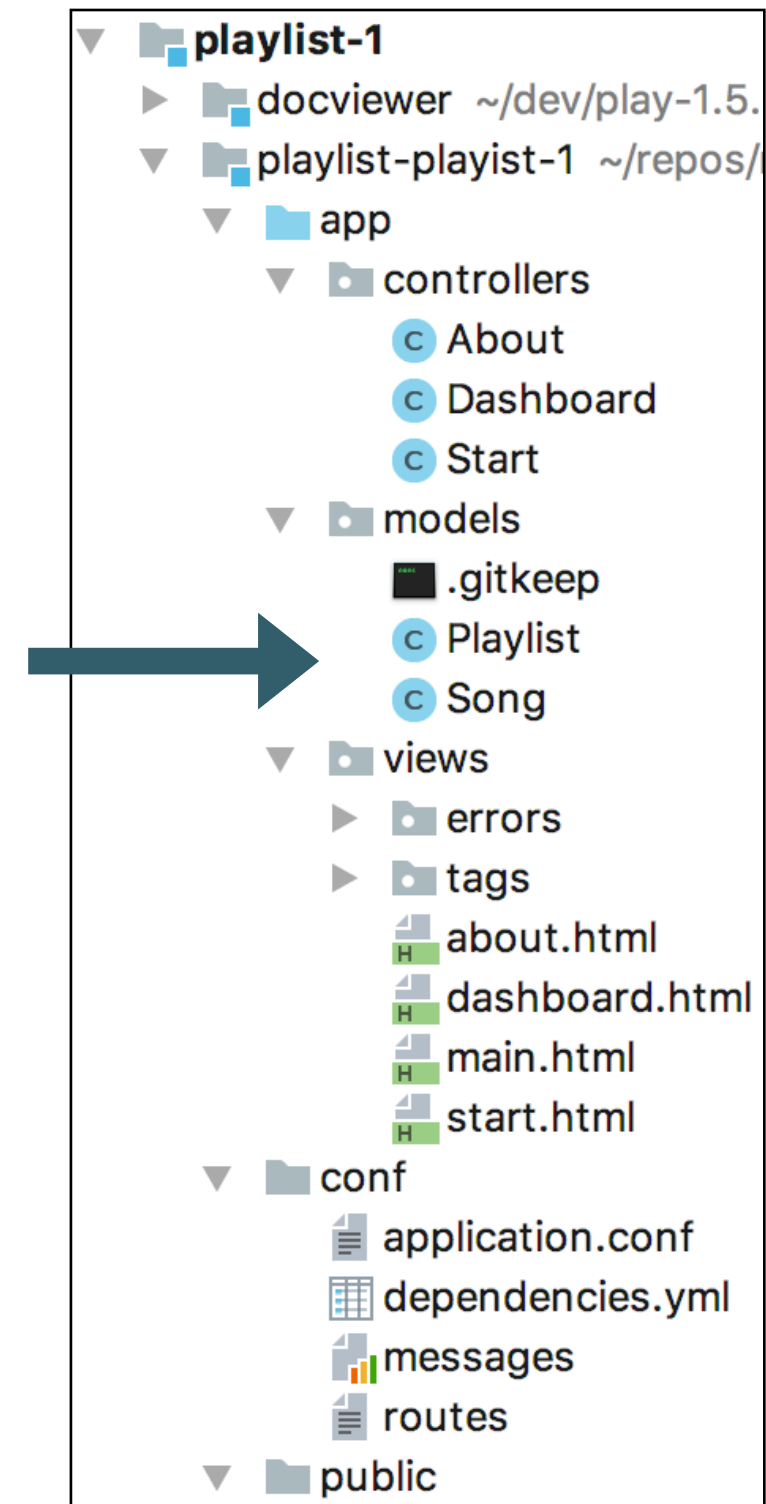
Song	Artist
Piano Sonata No. 3	Beethoven
Piano Sonata No. 7	Beethoven
Piano Sonata No. 10	Beethoven

## Beethoven Concertos

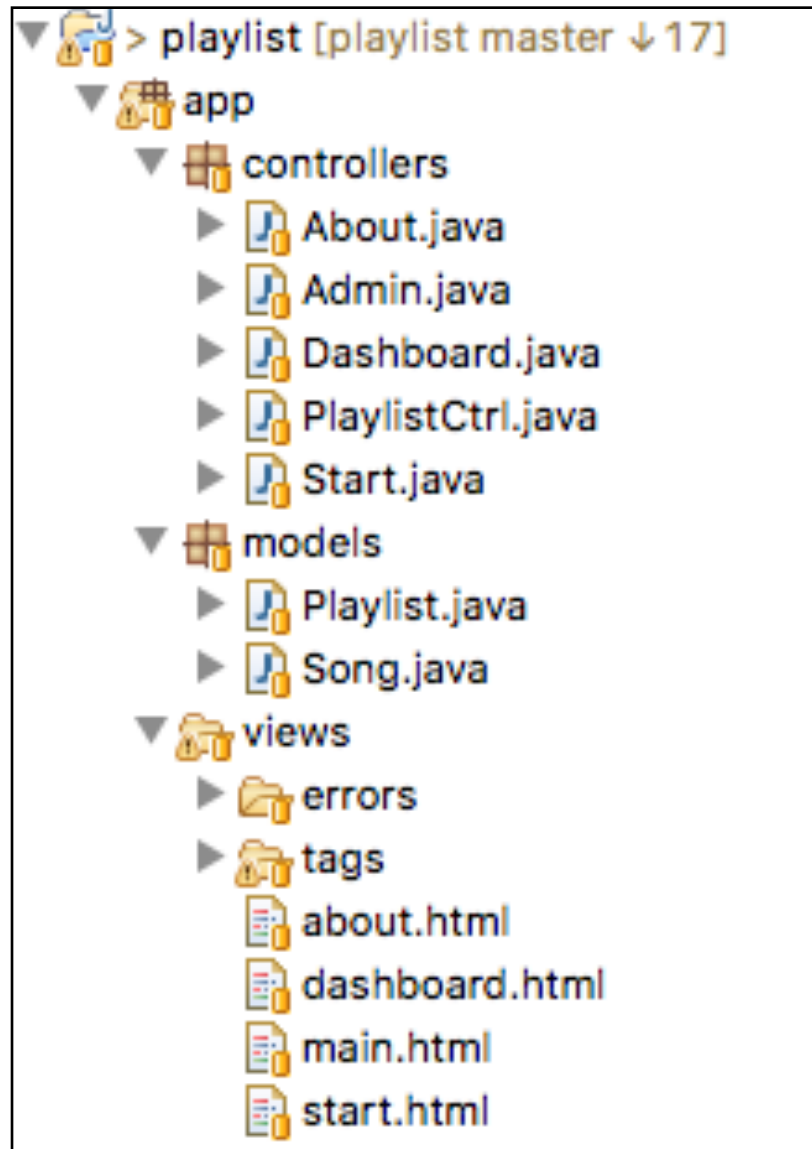
Song	Artist
Piano Concerto No. 1	Beethoven
Piano Concerto No. 12	Beethoven
Piano Concerto No. 23	Beethoven

# Model Playlist in Application

Models Package  
Contains Simple Java  
Class for Song &  
Playlist



# Song & Playlist



```
package models;

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

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

```
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

```
package models;

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

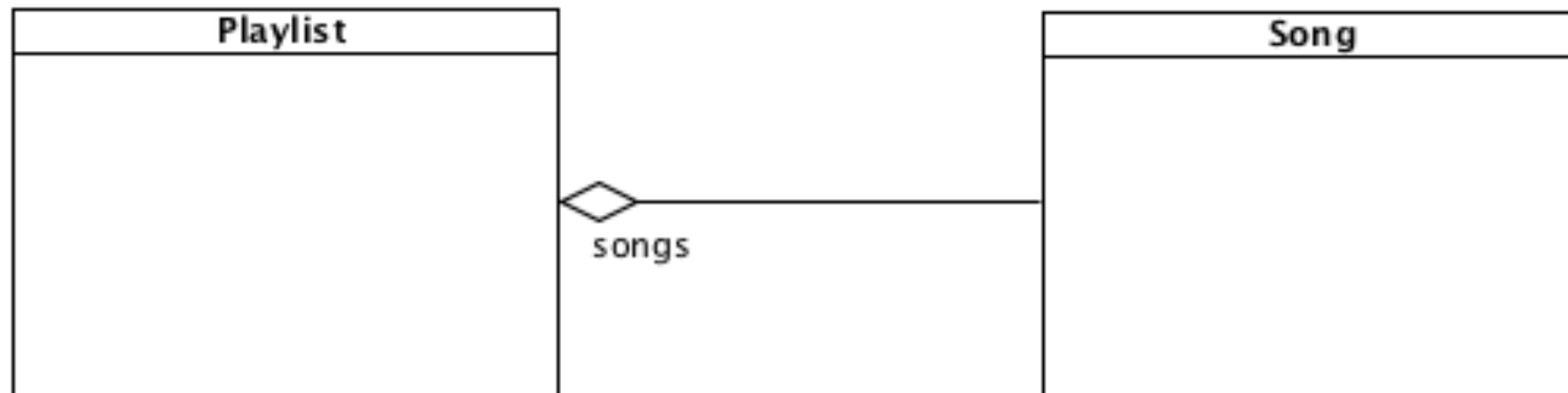
public class Playlist
{
    public String title;
    public List<Song> songs = new ArrayList<Song>();

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

```
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

```
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);
    }
}
```

## Accessing Java Object from Template

```
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

```
package models;

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

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

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

{menu id:"dashboard"/}

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



```

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);
    }
}

```

## Iterating through a list

listsongs.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>

```

```

<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>

```

playlist accessed via  
“\_playlist” identifier

for loop to iterate  
through each song in  
the array

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>

```

# Multiple Playlists

```
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

```
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);
    }
}
```

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 '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 %}
```

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

Iterate through the  
playlists array

Output the  
playlist name

```
#{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}
```

Pass the entire playlist to the  
listsongs partial

```

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}

```

## 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

```

<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>

```