

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
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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

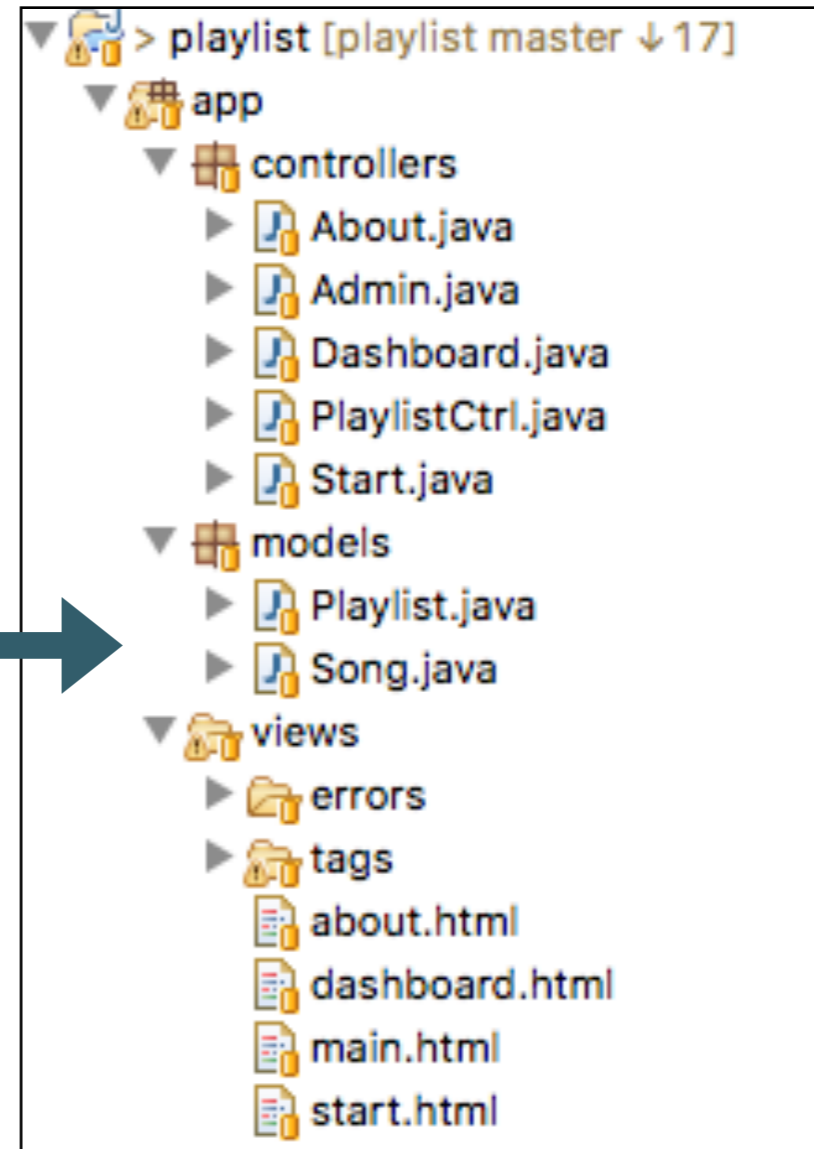
Song	Artist
Piano Sonata No. 3	Beethoven
Piano Sonata No. 7	Beethoven
Piano Sonata No. 10	Beethoven

Beethoven Concertos

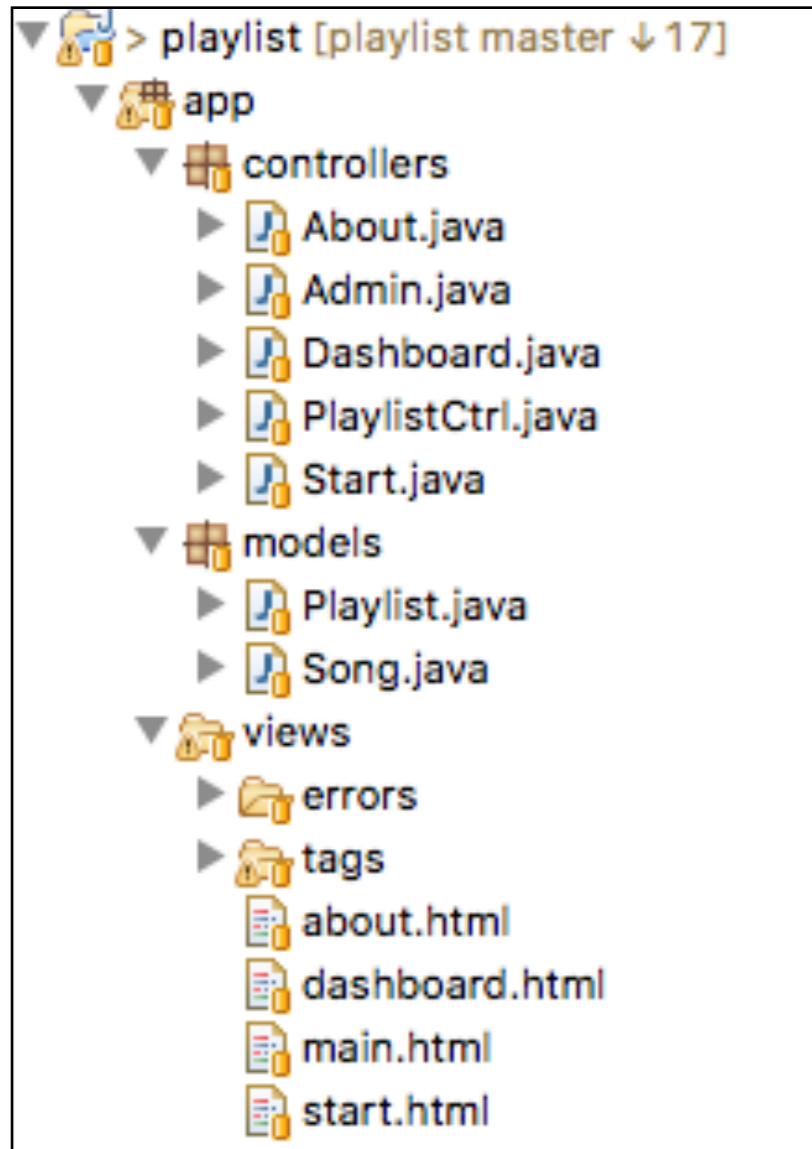
Song	Artist
Piano Concerto No. 1	Beethoven
Piano Concerto No. 12	Beethoven
Piano Concerto No. 23	Beethoven

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;

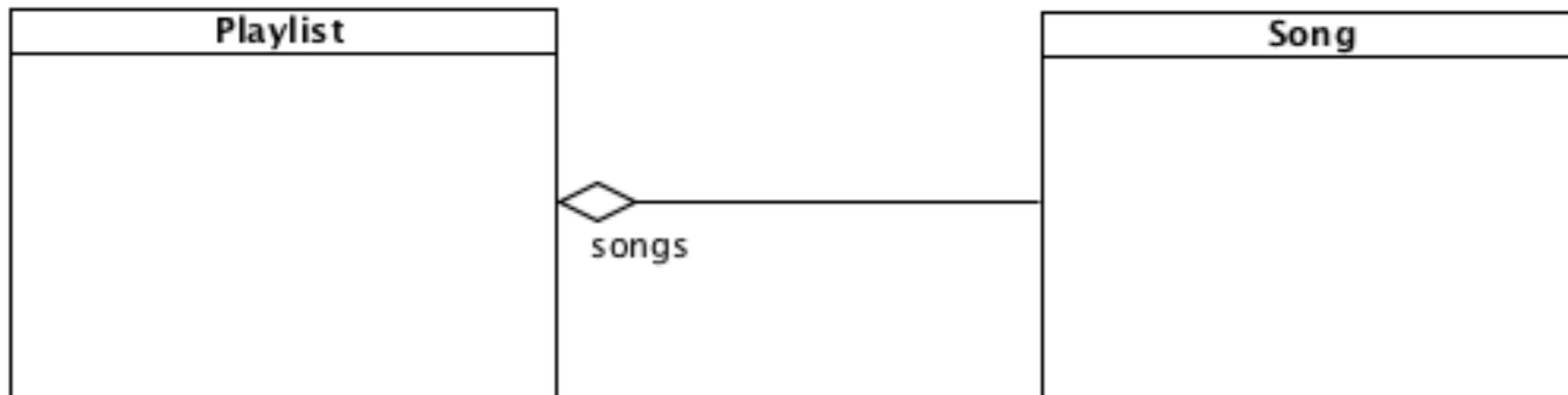
public class Playlist
{
    public String title;
    public List<Song> songs = new ArrayList<Song>();

    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

dashboard.html

```
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);
    }
}
```

```
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>
  </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>
  </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>

```