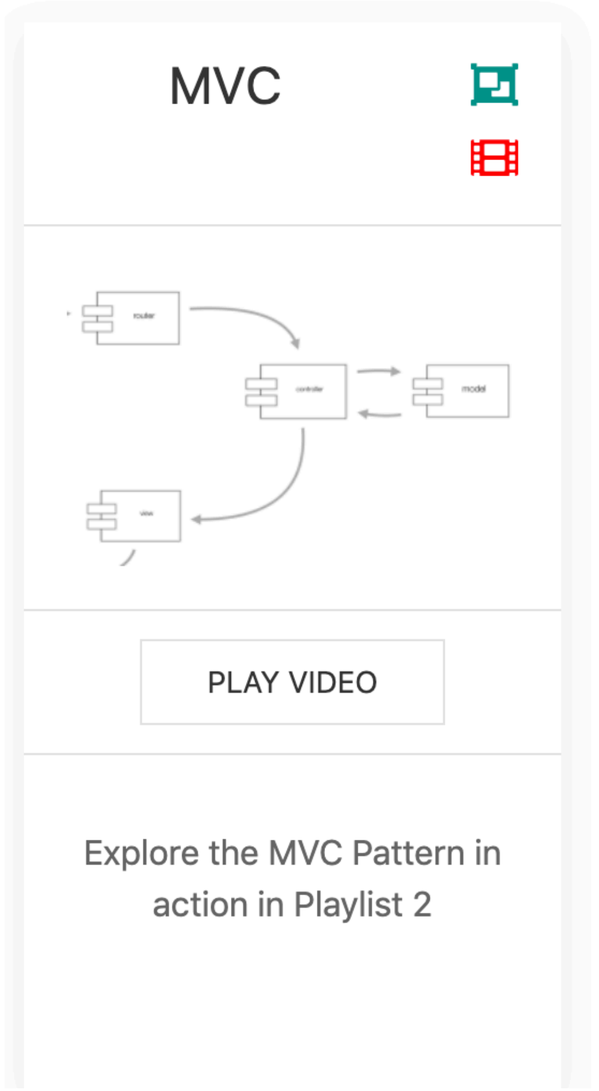
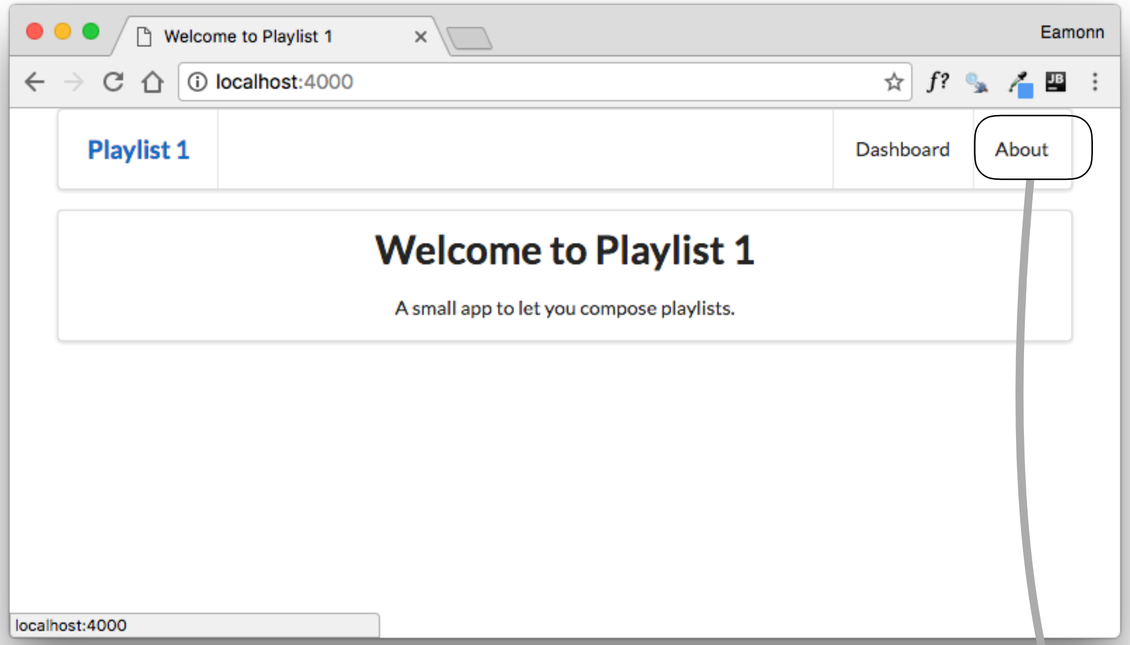
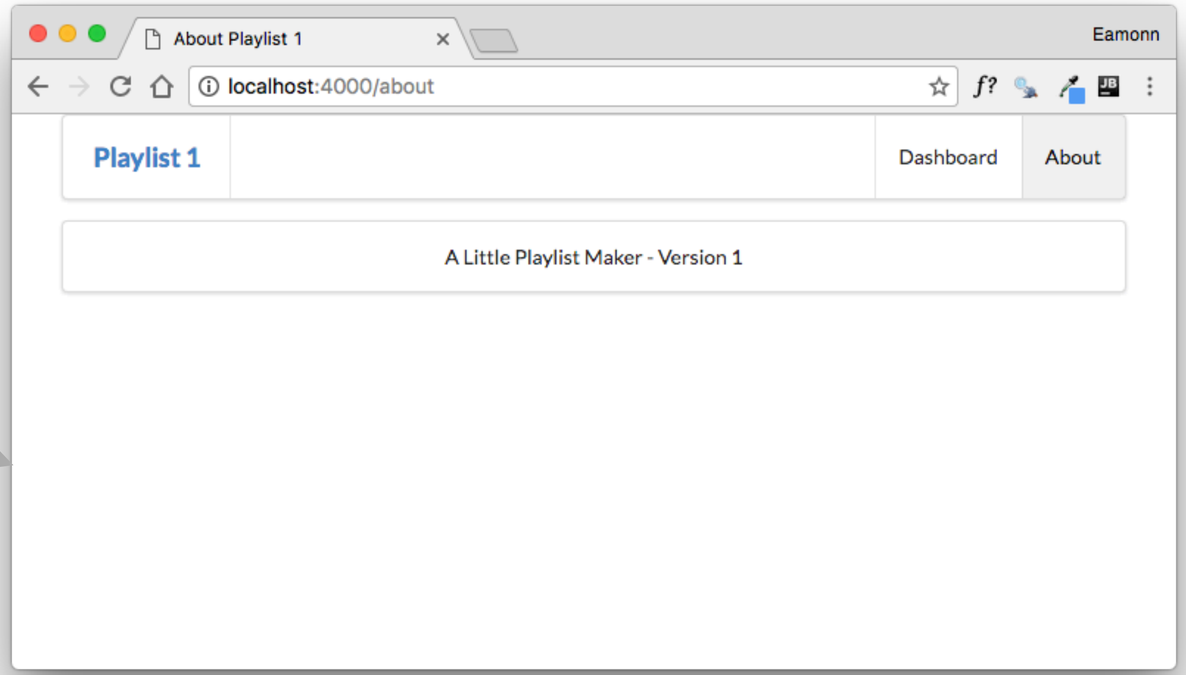
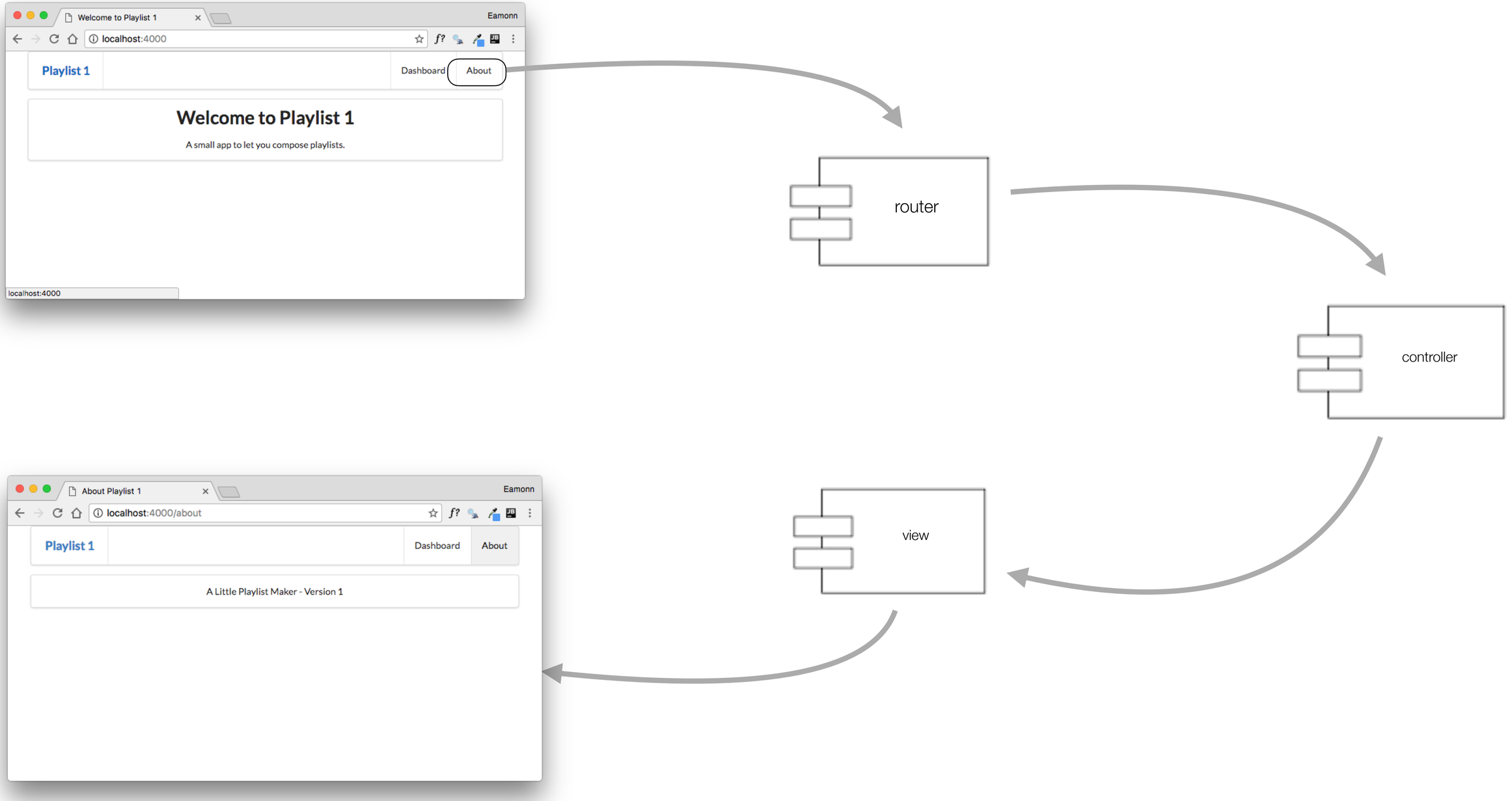
MVC


MVC
router
controller
model
view
PLAY VIDEO
Explore the MVC Pattern in action in Playlist 2



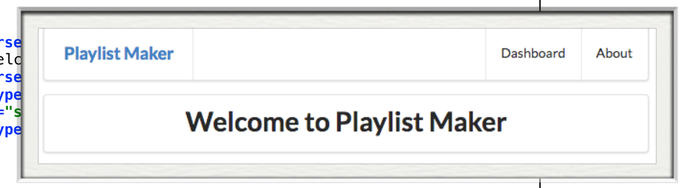
Router / Controller / View




Welcome to Playlist 1
Eamonn
localhost:4000
Playlist 1
Dashboard
About
Welcome to Playlist 1
A small app to let you compose playlists.
localhost:4000
router
controller
view
About Playlist 1
Eamonn
localhost:4000/about
Playlist 1
Dashboard
About
A Little Playlist Maker - Version 1

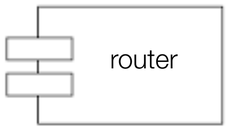
https://gomix-list.gomix.me/

```
<!DOCTYPE html>
<html>
  <head>
    <meta charse
    <title> Welc
    <meta charse
    <script type
    <link rel="s
    <script type

  </head>
  <body>
    <section class="ui container">
      <nav class="ui menu">
        <header class="ui header item">
          <a href="/"> Playlist 1 </a>
        </header>
        <div class="right menu">
          <a id="dashboard" class="item" href="/dashboard">
           Dashboard
          </a>
          <a id="about" class="item" href="/about">
            About
          </a>
        </div>
      </nav>

     <section class="ui center aligned middle aligned segment">
        <h1 class="ui header">
          Welcome to Playlist 1
        </h1>
        <p>
          A small app to let you compose playlists.
        </p>
      </section>
    </section>
  </body>
</html>
```



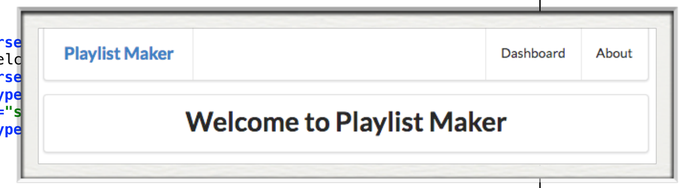
‘/about’

REQUEST



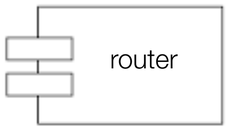
https://gomix-list.gomix.me/

```
<!DOCTYPE html>
<html>
  <head>
    <meta charse
    <title> Welc
    <meta charse
    <script type
    <link rel="s
    <script type

  </head>
  <body>
    <section class="ui container">
      <nav class="ui menu">
        <header class="ui header item">
          <a href="/"> Playlist 1 </a>
        </header>
        <div class="right menu">
          <a id="dashboard" class="item" href="/dashboard">
           Dashboard
          </a>
          <a id="about" class="item" href="/about">
            About
          </a>
        </div>
      </nav>

     <section class="ui center aligned middle aligned segment">
        <h1 class="ui header">
          Welcome to Playlist 1
        </h1>
        <p>
          A small app to let you compose playlists.
        </p>
      </section>
    </section>
  </body>
</html>
```



‘/about’

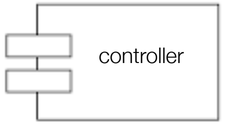
REQUEST



routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

about.index(req, res)

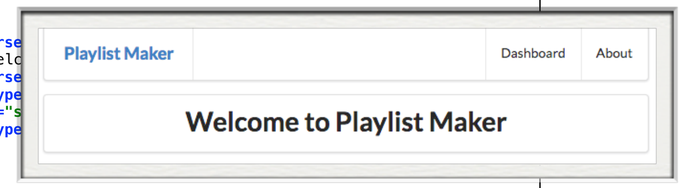


about.js

```
const about = {

  index(request, response) {
    logger.info('about rendering');
    const viewData = {
      title: 'About Playlist 1',
    };
    response.render('about', viewData);
  },

};
```

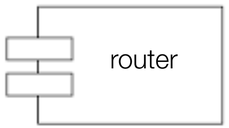
https://gomix-list.gomix.me/

```
<!DOCTYPE html>
<html>
  <head>
    <meta charse
    <title> Welc
    <meta charse
    <script type
    <link rel="s
    <script type

  </head>
  <body>
    <section class="ui container">
      <nav class="ui menu">
        <header class="ui header item">
          <a href="/"> Playlist 1 </a>
        </header>
        <div class="right menu">
          <a id="dashboard" class="item" href="/dashboard">
           Dashboard
          </a>
          <a id="about" class="item" href="/about">
            About
          </a>
        </div>
      </nav>

     <section class="ui center aligned middle aligned segment">
        <h1 class="ui header">
          Welcome to Playlist 1
        </h1>
        <p>
          A small app to let you compose playlists.
        </p>
      </section>
    </section>
  </body>
</html>
```



'/about'

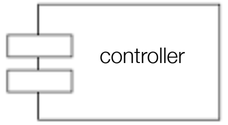
REQUEST



routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

about.index(req, res)



about.js

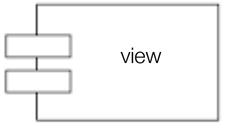
```
const about = {

  index(request, response) {
    logger.info('about rendering');
    const viewData = {
      title: 'About Playlist 1',
    };
    response.render('about', viewData);
  },

};
```

response.render('about', viewData);

```
viewData = {
  title: 'About Playlist 1',
};
```

about.hbs

```
{{> menu id="about"}}

<section class="ui
segment”>
  <p>
    About this app
  </p>
</section>
```



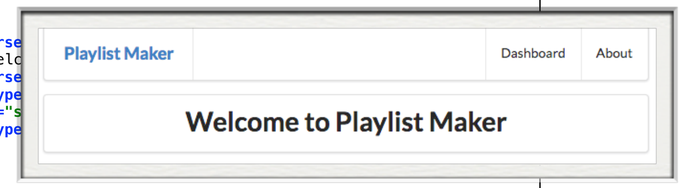
{{> menu id="about"}}

menu.hbs

```
<nav class="ui menu">
  <header class="ui header item"> <a href="/"> Template 1 </a></header>
  <div class="right menu">
    <a id="dashboard" class="item" href="/dashboard"> Dashboard  </a>
    <a id="about" class="item" href="/about"> About </a>
  </div>
</nav>
```

https://gomix-list.gomix.me/

```
<!DOCTYPE html>
<html>
  <head>
    <meta charse
    <title> Welc
    <meta charse
    <script type
    <link rel="s
    <script type

  </head>
  <body>
    <section class="ui container">
      <nav class="ui menu">
        <header class="ui header item">
          <a href="/"> Playlist 1 </a>
        </header>
        <div class="right menu">
          <a id="dashboard" class="item" href="/dashboard">
           Dashboard
          </a>
          <a id="about" class="item" href="/about">
            About
          </a>
        </div>
      </nav>

     <section class="ui center aligned middle aligned segment">
        <h1 class="ui header">
          Welcome to Playlist 1
        </h1>
        <p>
          A small app to let you compose playlists.
        </p>
      </section>
    </section>
  </body>
</html>
```



'/about'

REQUEST

router

routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

about.index(req, res)

controller

about.js

```
const about = {

  index(request, response) {
    logger.info('about rendering');
    const viewData = {
      title: 'About Playlist 1',
    };
    response.render('about', viewData);
  },

};
```

response.render('about', viewData);

```
viewData = {
  title: 'About Playlist 1',
};
```

about.hbs

```
{{> menu id="about"}}

<section class="ui
segment”>
  <p>
    About this app
  </p>
</section>
```

view

{{> menu id="about"}}

{{{body}}}

main.hbs

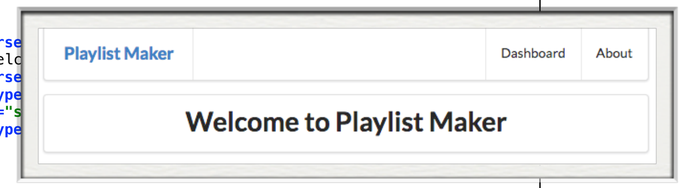
```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title> {{title}} </title>
    <meta charset="UTF-8">
    <script type="text/javascript" src=“...jquery.min.js”></script>
    <link rel="stylesheet" href=“...semantic.min.css” type="text/css">
    <script type="text/javascript" src=“h...semantic.min.js”></script>
  </head>
  <body>
    <section class="ui container">
      {{{body}}}
    </section>
  </body>
</html>
```

menu.hbs

```
<nav class="ui menu">
  <header class="ui header item"> <a href="/"> Template 1 </a></header>
  <div class="right menu">
    <a id="dashboard" class="item" href="/dashboard"> Dashboard  </a>
    <a id="about" class="item" href="/about"> About </a>
  </div>
</nav>
```

https://gomix-list.gomix.me/

```
<!DOCTYPE html>
<html>
  <head>
    <meta charse
    <title> Welc
    <meta charse
    <script type
    <link rel="s
    <script type

  </head>
  <body>
    <section class="ui container">
      <nav class="ui menu">
        <header class="ui header item">
          <a href="/"> Playlist 1 </a>
        </header>
        <div class="right menu">
          <a id="dashboard" class="item" href="/dashboard">
           Dashboard
          </a>
          <a id="about" class="item" href="/about">
            About
          </a>
        </div>
      </nav>

     <section class="ui center aligned middle aligned segment">
        <h1 class="ui header">
          Welcome to Playlist 1
        </h1>
        <p>
          A small app to let you compose playlists.
        </p>
      </section>
    </section>
  </body>
</html>
```



‘/about’

REQUEST

router

routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

about.index(req, res)

controller

about.js

```
const about = {

  index(request, response) {
    logger.info('about rendering');
    const viewData = {
      title: 'About Playlist 1',
    };
    response.render('about', viewData);
  },

};
```

response.render('about', viewData);

```
viewData = {
  title: 'About Playlist 1',
};
```

about.hbs

```
{{> menu id="about"}}

<section class="ui
segment”>
  <p>
    About this app
  </p>
</section>
```

view

{{> menu id="about"}}

{{{body}}}

main.hbs

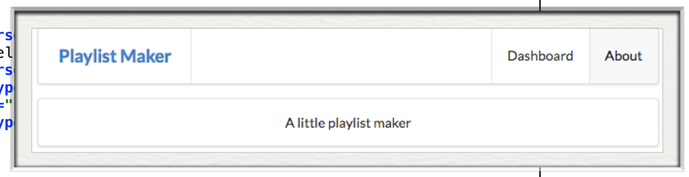
```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title> {{title}} </title>
    <meta charset="UTF-8">
    <script type="text/javascript" src=“...jquery.min.js”></script>
    <link rel="stylesheet" href=“...semantic.min.css” type="text/css">
    <script type="text/javascript" src="h...semantic.min.js”></script>
  </head>
  <body>
    <section class="ui container">
      {{{body}}}
    </section>
  </body>
</html>
```

menu.hbs

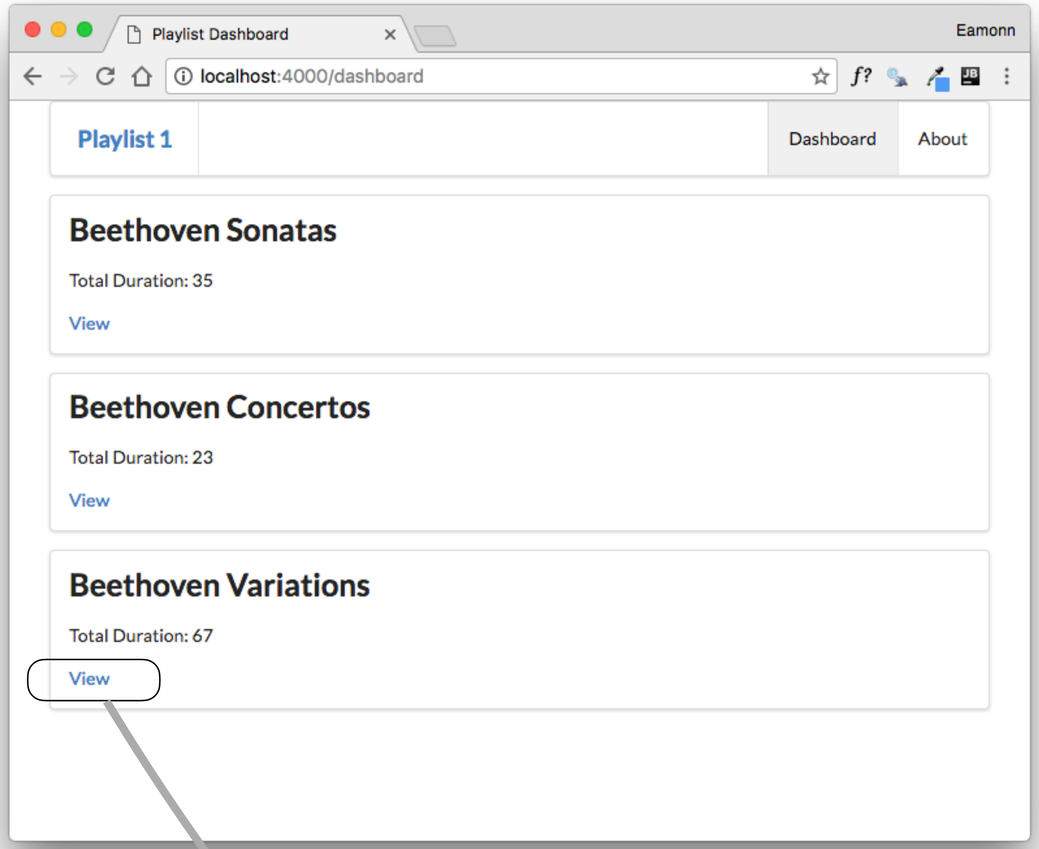
```
<nav class="ui menu">
  <header class="ui header item"> <a href="/"> Template 1 </a></header>
  <div class="right menu">
    <a id="dashboard" class="item" href="/dashboard"> Dashboard  </a>
    <a id="about" class="item" href="/about"> About </a>
  </div>
</nav>
```

RESPONSE

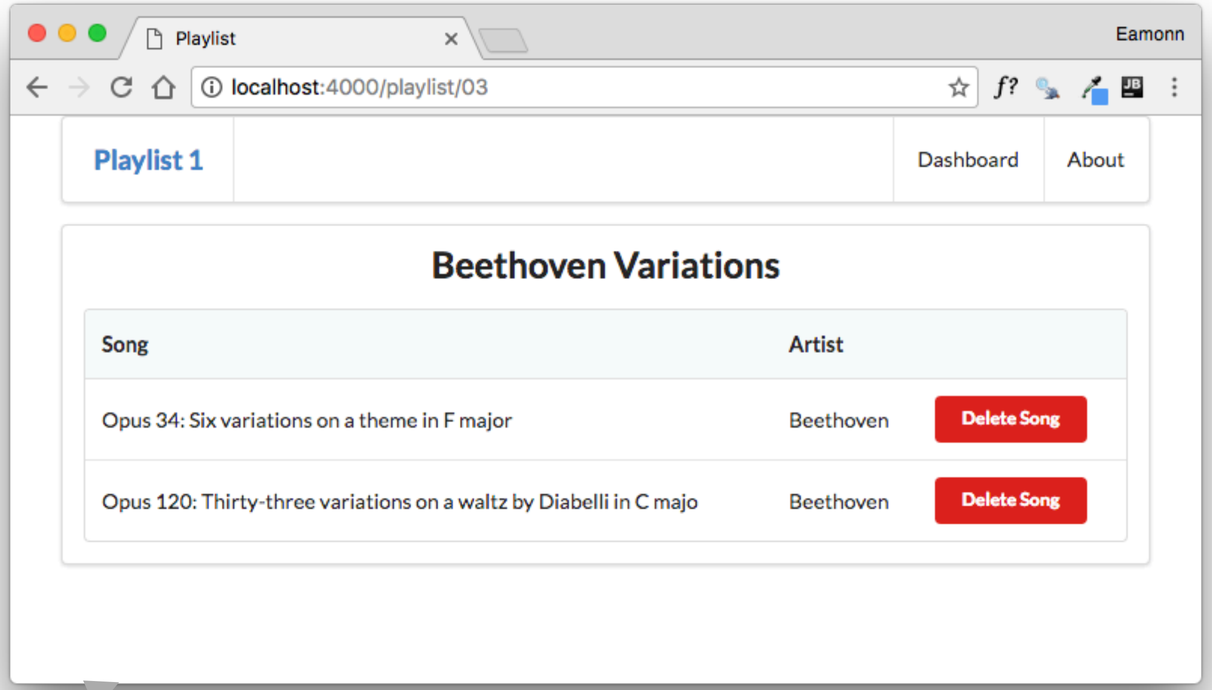
```
<!DOCTYPE html>
<html>
  <head>
    <meta chars
    <title> Wel
    <meta chars
    <script typ
    <link rel="
    <script typ

  </head>
  <body>
    <section class="ui container">
      <nav class="ui menu">
        <header class="ui header item">
          <a href="/"> Playlist 1 </a>
        </header>
        <div class="right menu">
          <a id="dashboard" class="item" href="/dashboard">
           Dashboard
          </a>
          <a id="about" class="item" href="/about">
            About
          </a>
        </div>
      </nav>

      <section class="ui center aligned middle aligned segment">
        <p>
          A Little Playlist Maker – Version 1
       </p>
      </section>

    </section>
  </body>
</html>
```

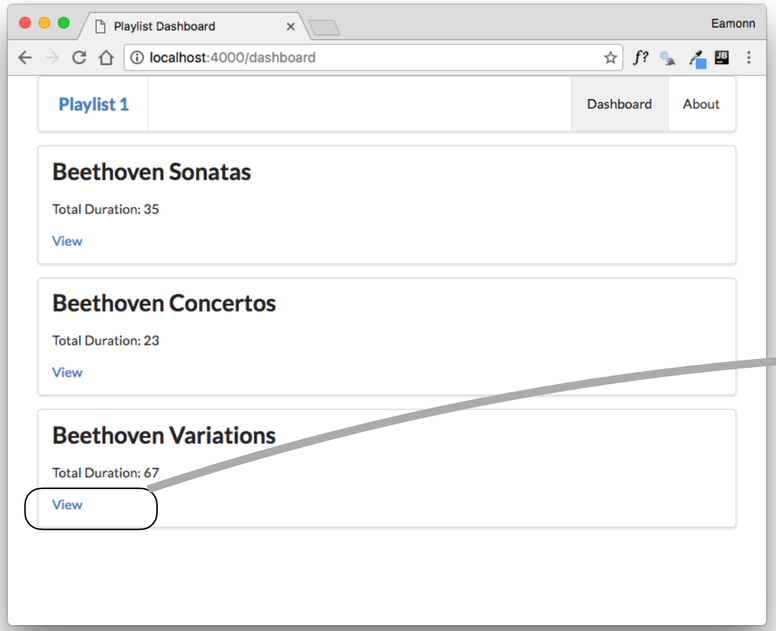


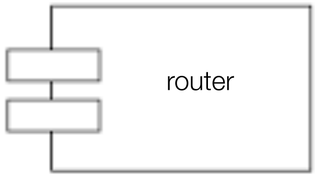
https://gomix-list.gomix.me/about

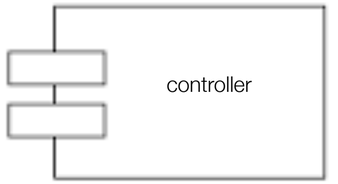


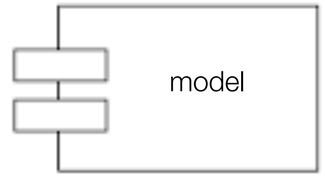
Router / Controller / Model / View

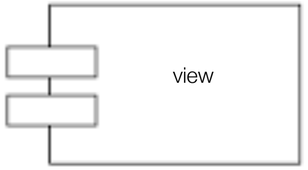


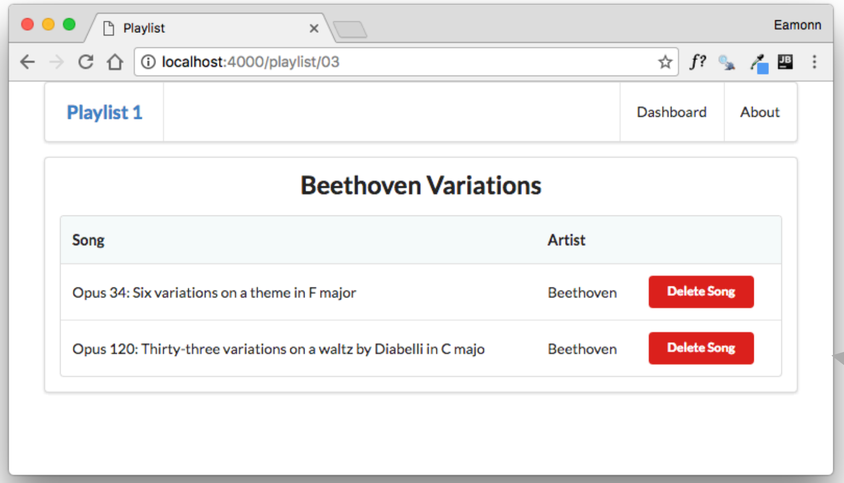

Playlist Dashboard
Eamonn
localhost:4000/dashboard
Playlist 1
Dashboard
About
Beethoven Sonatas
Total Duration: 35
View
Beethoven Concertos
Total Duration: 23
View
Beethoven Variations
Total Duration: 67
View


router

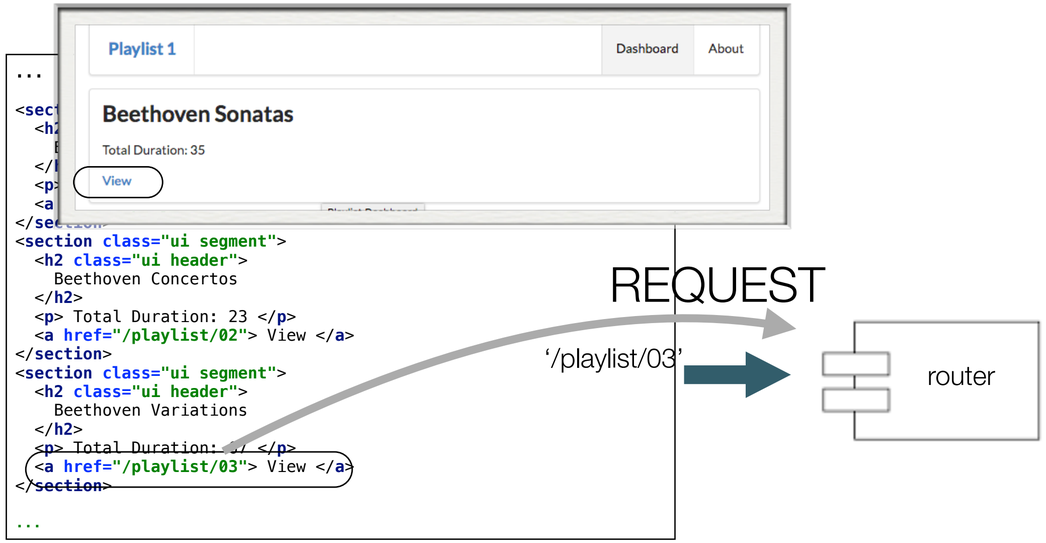

controller


model

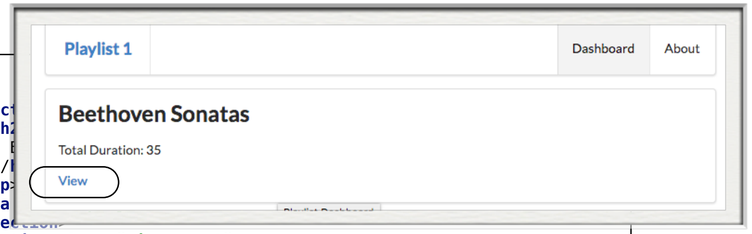

view


Playlist
Eamonn
localhost:4000/playlist/03
Playlist 1
Dashboard
About
Beethoven Variations
Song
Artist
Opus 34: Six variations on a theme in F major
Beethoven
Delete Song
Opus 120: Thirty-three variations on a waltz by Diabelli in C majo
Beethoven
Delete Song

https://playlist.glitch.me/dashboard



https://gomix-list.gomix.me/dashboard




```
...
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Concertos
  </h2>
  <p> Total Duration: 23 </p>
  <a href="/playlist/02"> View </a>
</section>
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Variations
  </h2>
  <p> Total Duration: 27 </p>
  <a href="/playlist/03"> View </a>
</section>
...
```

REQUEST

'/playlist/03'

router

routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

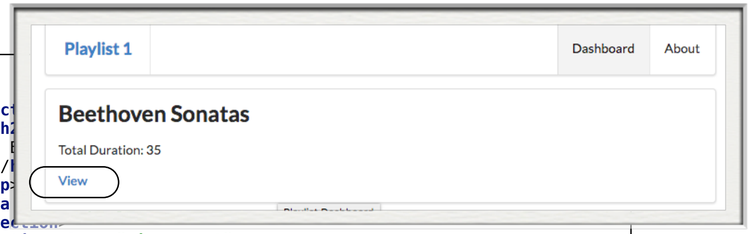
playlist.index(req, res)

playlist.js

```
const playlist = {
  index(request, response) {
    const playlistId = request.params.id;
    const viewData = {
      title: 'Playlist',
      playlist: playlistStore.getPlaylist(playlistId),
    };
    response.render('playlist', viewData);
  },

};
```

controller

https://playlist.glitch.me/dashboard




```
...
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Concertos
  </h2>
  <p> Total Duration: 23 </p>
  <a href="/playlist/02"> View </a>
</section>
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Variations
  </h2>
  <p> Total Duration: 67 </p>
  <a href="/playlist/03"> View </a>
</section>
...
```

REQUEST

'/playlist/03'

router

routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

playlist.index(req, res)

playlist.js

```
const playlist = {
  index(request, response) {
    const playlistId = request.params.id;
    const viewData = {
      title: 'Playlist',
      playlist: playlistStore.getPlaylist(playlistId),
    };
    response.render('playlist', viewData);
  },

};
```

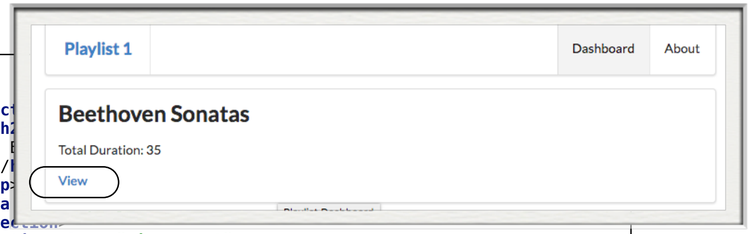
model

```
const playlistStore = {

...
  getPlaylist(id) {
    ...
  },

...
};
```

controller

```
{
  "playlistCollection": [
    {
      "id" : "01",
      ...
    },
    {
      "id" : "02",
      ...
    },
    {
      "id" : "03",
      "title": "Beethoven Variations",
      "duration": 67,
      "songs": [
        {
          "id" : "10",
          "title": "Opus 34: Six vari
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 11
        },
        {
          "id" : "11",
          "title": "Opus 120: Thirty-
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 45
        }
      ]
    }
  ]
}
```

https://playlist.glitch.me/dashboard




```
...
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Concertos
  </h2>
  <p> Total Duration: 23 </p>
  <a href="/playlist/02"> View </a>
</section>
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Variations
  </h2>
  <p> Total Duration: 67 </p>
  <a href="/playlist/03"> View </a>
</section>
...
```

REQUEST

'/playlist/03'

router

routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

playlist.index(req, res)

playlist.js

```
const playlist = {
  index(request, response) {
    const playlistId = request.params.id;
    const viewData = {
      title: 'Playlist',
      playlist: playlistStore.getPlaylist(playlistId),
    };
    response.render('playlist', viewData);
  },

};
```

model

```
const playlistStore = {

...
  getPlaylist(id) {
    ...
  },

...
};
```

```
{
  "playlistCollection": [
    {
    {
      "id" : "01",
      ...
    },
    {
      "id" : "02",
      ...
    },
    {
      "id" : "03",
      "title": "Beethoven Variations",
      "duration": 67,
      "songs": [
        {
          "id" : "10",
          "title": "Opus 34: Six vari
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 11
        },
        {
          "id" : "11",
          "title": "Opus 120: Thirty-
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 45
        }
      ]
    }
  ]
}
```

controller

view

playlist.hbs

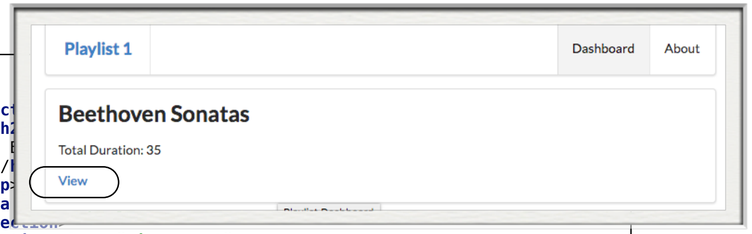
```
{{> menu}}

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

listsongs.hbs

```
<table class="ui table">
  <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
      <th></th>
    </tr>
  </thead>
  <tbody>
    {{#each playlist.songs}}
      <tr>
        <td>
          {{title}}
        </td>
        <td>
          {{artist}}
        </td>
      </tr>
    {{/each}}
  </tbody>
</table>
```

```
viewData = {
  title: 'Playlist',
  playlist: {
    "id" : "03",
    "title": "Beethoven Variations",
    "duration": 67,
    "songs": [
      {
        "id" : "10",
        "title": "Opus 34: Six variation…",
        "artist": "Beethoven",
        "genre": "Classical",
        "duration": 11
      },
      {
        "id" : "11",
        "title": "Opus 120: Thirty-three…",
        "artist": "Beethoven",
        "genre": "Classical",
        "duration": 45
      }
  }
};
```

https://playlist.glitch.me/dashboard




```
...
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Concertos
  </h2>
  <p> Total Duration: 23 </p>
  <a href="/playlist/02"> View </a>
</section>
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Variations
  </h2>
  <p> Total Duration: 67 </p>
  <a href="/playlist/03"> View </a>
</section>
...
```

REQUEST

'/playlist/03'

router

routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

playlist.index(req, res)

playlist.js

```
const playlist = {
  index(request, response) {
    const playlistId = request.params.id;
    const viewData = {
      title: 'Playlist',
      playlist: playlistStore.getPlaylist(playlistId),
    };
    response.render('playlist', viewData);
  },

};
```

model

```
const playlistStore = {

...
  getPlaylist(id) {
    ...
  },

...
};
```

controller

```
{
  "playlistCollection": [
    {
    {
      "id" : "01",
       ...
    },
    {
      "id" : "02",
       ...
    },
    {
      "id" : "03",
      "title": "Beethoven Variations",
      "duration": 67,
      "songs": [
        {
          "id" : "10",
          "title": "Opus 34: Six vari
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 11
        },
        {
          "id" : "11",
          "title": "Opus 120: Thirty-
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 45
        }
      ]
    }
  ]
}
```

response.render('playlist', viewData);

view

playlist.hbs

```
{{> menu}}

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

{{{body}}}

main.hbs

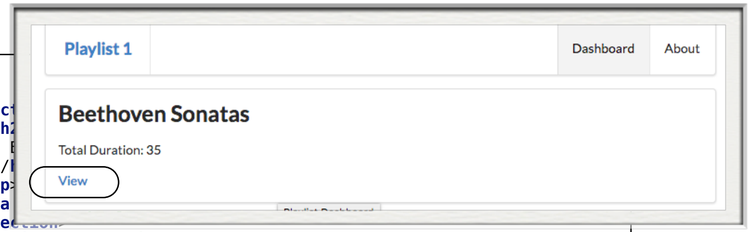
```
<!DOCTYPE html>
<html>
  <head>
    ...
  </head>
  <body>
    <section class="ui container">
      {{{body}}}
    </section>
  </body>
</html>
```

listsongs.hbs

```
<table class="ui table">
  <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
      <th></th>
    </tr>
  </thead>
  <tbody>
    {{#each playlist.songs}}
      <tr>
        <td>
          {{title}}
        </td>
        <td>
          {{artist}}
        </td>
      </tr>
    {{/each}}
  </tbody>
</table>
```

```
viewData = {
  title: 'Playlist',
  playlist: {
    "id" : "03",
    "title": "Beethoven Variations",
    "duration": 67,
    "songs": [
      {
        "id" : "10",
        "title": "Opus 34: Six variation…",
        "artist": "Beethoven",
        "genre": "Classical",
        "duration": 11
      },
      {
        "id" : "11",
        "title": "Opus 120: Thirty-three…",
        "artist": "Beethoven",
        "genre": "Classical",
        "duration": 45
      }
  }
};
```

https://playlist.glitch.me/dashboard




```
...
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Concertos
  </h2>
  <p> Total Duration: 23 </p>
  <a href="/playlist/02"> View </a>
</section>
<section class="ui segment">
  <h2 class="ui header">
    Beethoven Variations
  </h2>
  <p> Total Duration: 67 </p>
  <a href="/playlist/03"> View </a>
</section>
...
```

REQUEST

'/playlist/03'

router

routes.js

```
router.get('/', dashboard.index);
router.get('/dashboard', dashboard.index);
router.get('/playlist/:id', playlist.index);
router.get('/about', about.index);
```

playlist.index(req, res)

playlist.js

```
const playlist = {
  index(request, response) {
    const playlistId = request.params.id;
    const viewData = {
      title: 'Playlist',
      playlist: playlistStore.getPlaylist(playlistId),
    };
    response.render('playlist', viewData);
  },

};
```

model

```
const playlistStore = {

...
  getPlaylist(id) {
    ...
  },

...
};
```

```
{
  "playlistCollection": [
    {
    {
      "id" : "01",
       ...
    },
    {
      "id" : "02",
       ...
    },
    {
      "id" : "03",
      "title": "Beethoven Variations",
      "duration": 67,
      "songs": [
        {
          "id" : "10",
          "title": "Opus 34: Six vari
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 11
        },
        {
          "id" : "11",
          "title": "Opus 120: Thirty-
          "artist": "Beethoven",
          "genre": "Classical",
          "duration": 45
        }
      ]
    }
  ]
}
```

controller

response.render('playlist', viewData);

playlist.hbs

```
{{> menu}}

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

view

listsongs.hbs

```
<table class="ui table">
  <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
      <th></th>
    </tr>
  </thead>
  <tbody>
    {{#each playlist.songs}}
      <tr>
        <td>
          {{title}}
        </td>
        <td>
          {{artist}}
        </td>
      </tr>
    {{/each}}
  </tbody>
</table>
```

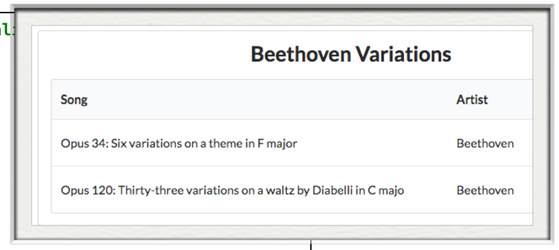
```
viewData = {
  title: 'Playlist',
  playlist: {
    "id" : "03",
    "title": "Beethoven Variations",
    "duration": 67,
    "songs": [
      {
        "id" : "10",
        "title": "Opus 34: Six variation…",
        "artist": "Beethoven",
        "genre": "Classical",
        "duration": 11
      },
      {
        "id" : "11",
        "title": "Opus 120: Thirty-three…",
        "artist": "Beethoven",
        "genre": "Classical",
        "duration": 45
      }
  }
};
```

{{{body}}}

main.hbs

```
<!DOCTYPE html>
<html>
  <head>
    ...
  </head>
  <body>
    <section class="ui container">
      {{{body}}}
    </section>
  </body>
</html>
```

RESPONSE




```
<section class="ui center al
  <h2 class="ui header">
    Beethoven Variations
  </h2>
  <table class="ui table">
    <thead>
    <tr>
      <th>Song</th>
      <th>Artist</th>
      <th></th>
    </tr>
    </thead>
    <tbody>
    <tr>
      <td>
        Opus 34: Six variations on a theme in F major
      </td>
      <td>
        Beethoven
      </td>
    </tr>
    <tr>
      <td>
        Opus 120: Thirty-three variations on a w… C majo
      </td>
      <td>
        Beethoven
      </td>
    </tr>
    </tbody>
  </table>
</section>
```

https://playlist.glitch.me/playlist/03