

Creating Sessions

package.json

back-end +

.env

.gitignore

.jscsrc

controllers/about.js

controllers/accounts.js

controllers/dashboard.js

controllers/playlist.js

controllers/start.js

models/json-store.js

models/playlist-store.js

models/playlist-store.json

models/user-store.js

models/user-store.json

package.json

README.md

routes.js

server.js

utils/logger.js

front-end +

assets

views/about.hbs

views/dashboard.hbs

views/index.hbs

views/layouts/main.hbs

views/login.hbs

views/partials/addplaylist.hbs

views/partials/addsong.hbs

views/partials/listplaylists.hbs

views/partials/listsongs.hbs

views/partials/menu.hbs

views/partials/welcomemenu.hbs

views/playlist.hbs

views/signup.hbs

views/start.hbs

```
{
  "name": "gomix-playlist-4",
  "version": "0.0.1",
  "description": "Playlist application",
  "main": "server.js",
  "scripts": {
    "start": "node server.js"
  },
  "dependencies": {
    "body-parser": "^1.15.2",
    "express": "^4.14.0",
    "express-handlebars": "^3.0.0",
    "lodash": "^4.17.3",
    "lowdb": "^0.14.0",
    "uuid": "^3.0.1",
    "winston": "^2.3.0"
  },
  "engines": {
    "node": "6.9.1"
  },
  "repository": {
    "url": "https://github.com/edeleastar/gomix-playlist-4.git"
  },
  "keywords": [
    "node",
    "gomix",
    "express"
  ]
}
```

describes the characteristics
+ dependencies of the
application

dependencies

```
{  
  ...  
  "dependencies": {  
    "body-parser": "^1.15.2",  
    "express": "^4.14.0",  
    "express-handlebars": "^3.0.0",  
    "lodash": "^4.17.3",  
    "lowdb": "^0.14.0",  
    "uuid": "^3.0.1",  
    "winston": "^2.3.0"  
  },  
  ...  
}
```

Enumerates the various
modules our application
requires

dependencies

```
{  
...  
  "dependencies": {
```

```
    "body-parser": "^1.15.2",  
    "express": "^4.14.0",  
    "express-handlebars": "^3.0.0",
```

Express Framework

```
    "lodash": "^4.17.3",  
    "lowdb": "^0.14.0",
```

lowdb Database

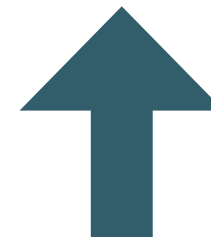
```
    "uuid": "^3.0.1",
```

uuid ID generation library

```
    "winston": "^2.3.0"
```

winston logging

```
  },  
...  
}
```



Each of these is an independent library, with its own documentation, examples and community of users

Express Framework

Express

[Home](#) [Getting started](#) [Guide](#) [API reference](#) [Advanced topics](#) [Resources](#)

Express

4.15.2

Fast, unopinionated,
minimalist web
framework for [Node.js](#)

```
$ npm install express --save
```



Web Applications

Express is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications.

APIs

With a myriad of HTTP utility methods and middleware at your disposal, creating a robust API is quick and easy.

Performance

Express provides a thin layer of fundamental web application features, without obscuring Node.js features that you know and love.

Frameworks

Many [popular frameworks](#) are based on Express.

<https://expressjs.com/>

Lowdb Database

Lowdb

npm package

0.16.0

build

passing

A small local database powered by lodash API

```
const db = low('db.json')

// Set some defaults if your JSON file is empty
db.defaults({ posts: [], user: {} })
  .write()

// Add a post
db.get('posts')
  .push({ id: 1, title: 'lowdb is awesome'})
  .write()

// Set a user
db.set('user.name', 'typicode')
  .value()
```

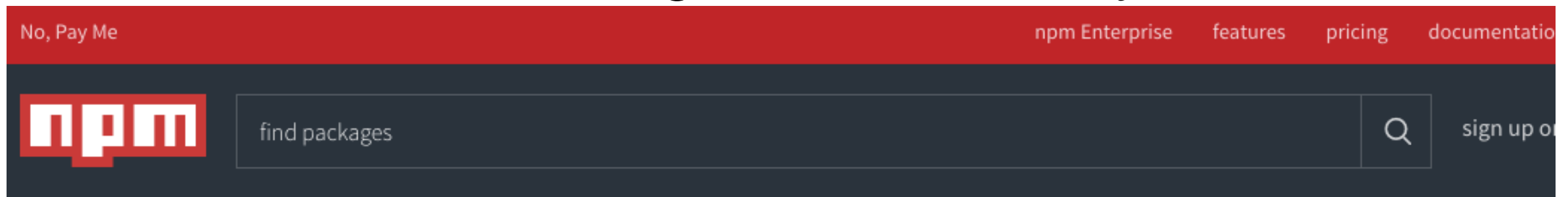
Data is saved to `db.json`

```
{
  "posts": [
    { "id": 1, "title": "lowdb is awesome" }
  ],
  "user": {
    "name": "typicode"
  }
}
```

<https://github.com/typicode/lowdb>

You can use any [lodash](#) function like `_.get` and `_.find` with shorthand syntax.

uuid ID generation library



uuid public



Simple, fast generation of **RFC4122** UUIDs.

Features:

- Generate RFC4122 version 1 or version 4 UUIDs
- Runs in node.js and browsers
- Cryptographically strong random number generation on supporting platforms
- Small footprint (Want something smaller? [Check this out!](#))

Quickstart - CommonJS (Recommended)

```
npm install uuid
```

```
// Generate a v1 UUID (time-based)
const uuidV1 = require('uuid/v1');
uuidV1(); // -> '6c84fb90-12c4-11e1-840d-7b25c5ee775a'

// Generate a v4 UUID (random)
const uuidV4 = require('uuid/v4');
uuidV4(); // -> '110ec58a-a0f2-4ac4-8393-c866d813b8d1'
```

Manage permissions for the whole team

Manage developer teams with varying permissions and multiple projects. [Learn more about Private Packages and Organizations...](#)

 npm install uuid

[how? learn more](#)

 **defunctzombie** published 3 month...

3.0.1 is the latest of 11 releases

github.com/kelektiv/node-uuid

MIT 

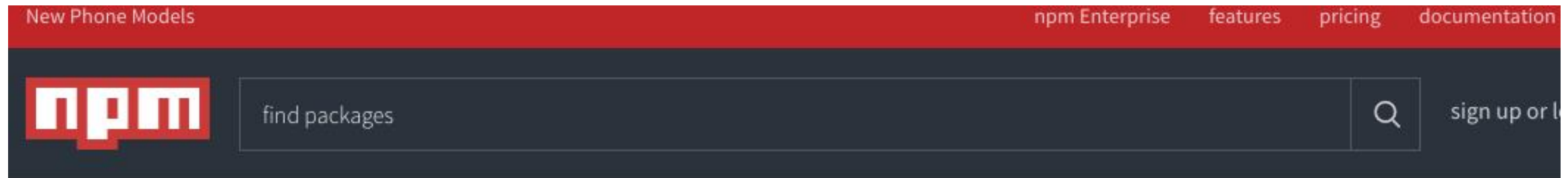
Collaborators [list](#)



Stats

<https://www.npmjs.com/package/uuid>

winston logging



winston public

gitter join chat

npm v2.3.1 downloads 6M/month build passing dependencies out-of-date



npm install winston

6 dependencies version 2.3.1
3,101 dependents updated 2 months ago
5,909,418 downloads in the last month
download rank: 361st of 380,500 packages

A multi-transport async logging library for node.js. "CHILL WINSTON! ... I put it in the logs."

Motivation

Winston is designed to be a simple and universal logging library with support for multiple transports. A transport is essentially a storage device for your logs. Each instance of a winston logger can have multiple transports configured at different levels. For example, one may want error logs to be stored in a persistent remote location (like a database), but all logs output to the console or a local file.

There also seemed to be a lot of logging libraries out there that coupled their implementation of logging (i.e. how the logs are stored / indexed) to the API that they exposed to the programmer. This library aims to decouple those parts of the process to make it more flexible and extensible.

Manage permissions for the whole team

Manage developer teams with varying permissions and multiple projects. [Learn more about Private Packages and Organizations...](#)

npm install winston
[how? learn more](#)

indexzero published 2 months ago

2.3.1 is the latest of 42 releases

github.com/winstonjs/winston

MIT

Collaborators [list](#)



<https://www.npmjs.com/package/winston>

Sessions Support - Cookie Parser

- [body-parser](#)
- [compression](#)
- [connect-redis](#)
- [cookie-parser](#)
- [cookie-session](#)
- [cors](#)
- [csurf](#)
- [errorhandler](#)
- [method-override](#)
- [morgan](#)
- [multer](#)
- [response-time](#)
- [serve-favicon](#)
- [serve-index](#)
- [serve-static](#)
- [session](#)
- [timeout](#)
- [vhost](#)

cookie-parser

npm **v1.4.3** downloads **2M/month** node **>= 0.8.0** build **passing** coverage **100%**

Parse `Cookie` header and populate `req.cookies` with an object keyed by the cookie names. Optionally you may enable signed cookie support by passing a `secret` string, which assigns `req.secret` so it may be used by other middleware.

Installation

```
$ npm install cookie-parser
```

API

```
var express = require('express')
var cookieParser = require('cookie-parser')

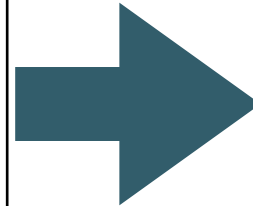
var app = express()
app.use(cookieParser())
```

`cookieParser(secret, options)`

- `secret` a string or array used for signing cookies. This is optional and if not specified, will not parse signed cookies. If a string is provided, this is used as the secret. If an array is provided, an attempt will be made to unsign the cookie with each secret in order.
- `options` an object that is passed to `cookie.parse` as the second option. See [cookie](#) for more information.
 - `decode` a function to decode the value of the cookie

Include Cookie Parser Module

```
{
  ...
  "dependencies": {
    "body-parser": "^1.15.2",
    "express": "^4.14.0",
    "express-handlebars": "^3.0.0",
    "lodash": "^4.17.3",
    "lowdb": "^0.14.0",
    "uuid": "^3.0.1",
    "winston": "^2.3.0"
  },
  ...
}
```



```
{
  ...
  "dependencies": {
    "body-parser": "^1.15.2",
    "cookie-parser": "^1.4.3",
    "express": "^4.14.0",
    "express-handlebars": "^3.0.0",
    "lodash": "^4.17.3",
    "lowdb": "^0.14.0",
    "uuid": "^3.0.1",
    "winston": "^2.3.0"
  },
  ...
}
```

New entry include
cookie module in
application

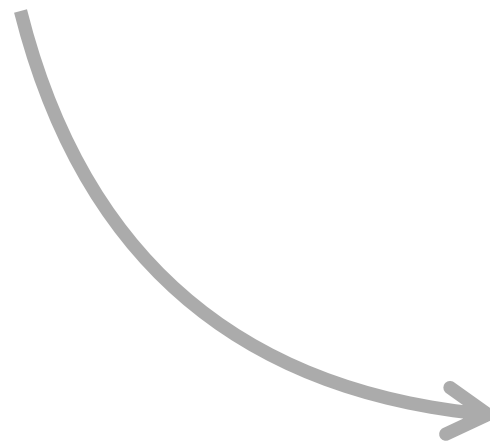
Routes

Register a new
User with the
application

routes.js

```
router.post('/register', accounts.register);  
router.post('/authenticate', accounts.authenticate);
```

Check to see if a
given
email/password is
known to the
application



Routes

routes.js

```
router.post('/register', accounts.register);  
router.post('/authenticate', accounts.authenticate);
```

Create a new user
database object

Check Database
for given user
-> Create Session
Object if user
found

userStore object

```
'use strict';

const _ = require('lodash');
const JsonStore = require('./json-store');

const userStore = {

  store: new JsonStore('./models/user-store.json', {users: []}),
  collection: 'users',

  getAllUsers() {
    return this.store.findAll(this.collection);
  },

  addUser(user) {
    this.store.add(this.collection, user);
  },

  getUserById(id) {
    return this.store.findOneBy(this.collection, { id: id });
  },

  getUserByEmail(email) {
    return this.store.findOneBy(this.collection, { email: email });
  },
}

module.exports = userStore;
```

Manage
database of
users,
supporting:

- create
- getAll
- getById
- getByEmail

user-store.json

```
{  
  "users": [  
    {  
      "firstName": "homer",  
      "lastName": "simpson",  
      "email": "homer@simpson.com",  
      "password": "secret",  
      "id": "3ad52697-6d98-4d80-8273-084de55a86c0"  
    },  
    {  
      "firstName": "marge",  
      "lastName": "simpson",  
      "email": "marge@simpson.com",  
      "password": "secret",  
      "id": "2b6f0989-7b7f-4a38-ad26-aa06b922d751"  
    }  
  ]  
}
```


account.register method

Playlist 4 Signup Login

Register

First Name

Homer

Last Name

Simpson

Email

homer@simpson.com

Password

.....

Submit

Create a new user
object based on
form data
+ Add to user-store

```
...  
register(request, response) {  
  const user = request.body;  
  user.id = uuid();  
  userstore.addUser(user);  
  logger.info(`registering ${user.email}`);  
  response.redirect('/');  
},  
...
```

accounts.authenticate method

Playlist 4

Log-in

Email

homer@simpson.com

Password

.....

Login

Check if user exists

If user known, create
cookie called
'playlist' containing
users email, then
switch to the
application

Otherwise, ask user
to try to log in again

```
...  
authenticate(request, response) {  
  
  const user = userstore.getUserByEmail(request.body.email);  
  
  if (user) {  
  
    response.cookie('playlist', user.email);  
    logger.info('logging in ${user.email}');  
    response.redirect('/start');  
  
  } else {  
  
    response.redirect('/login');  
  
  }  
  
},  
...  
}
```

accounts.getCurrentUser method

Utility method to see if session exists
and which user 'owns' the session.

```
...  
getCurrentUser (request) {  
  const userEmail = request.cookies.playlist;  
  return userstore.getUserByEmail(userEmail);  
}  
...
```

Return a valid user object if session exists
Otherwise return null

dashboard: index

Discover
which user
is currently
logged in

```
const dashboard = {  
  ...  
  index(request, response) {  
    logger.info('dashboard rendering');  
  
    const loggedInUser = accounts.getCurrentUser(request);  
  
    const viewData = {  
      title: 'Playlist Dashboard',  
      playlists: playlistStore.getUserPlaylists(loggedInUser.id),  
      ...  
    };  
  
    logger.info('about to render', playlistStore.getUserPlaylists(loggedInUser.id));  
    response.render('dashboard', viewData);  
  },  
  ...  
}
```

Retrieve only those
playlists associated with
the logged in user

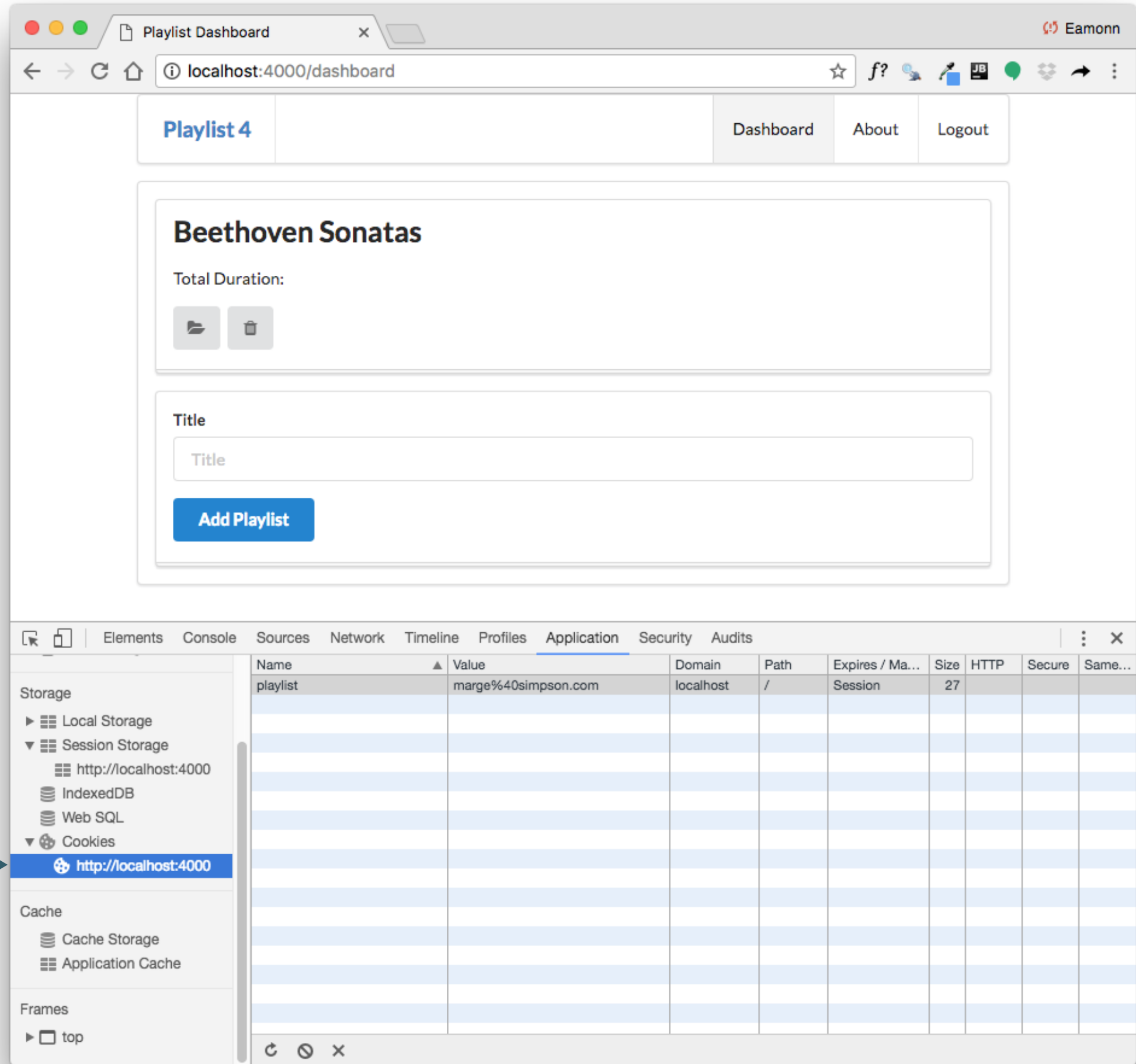
dashboard: addPlaylist

Discover
which user
is currently
logged in

```
const dashboard = {  
  ...  
  addPlaylist(request, response) {  
    const loggedInUser = accounts.getCurrentUser(request);  
  
    const newPlayList = {  
      id: uuid(),  
      userid: loggedInUser.id,  
      title: request.body.title,  
      songs: [],  
    };  
  
    logger.debug('Creating a new Playlist', newPlayList);  
    playlistStore.addPlaylist(newPlayList);  
    response.redirect('/dashboard');  
  },  
  ...  
}
```

In the new playlist,
include the id of the
currently logged in user

Browser Cookies



Session Cookies can be inspected in Browser

Password Check?

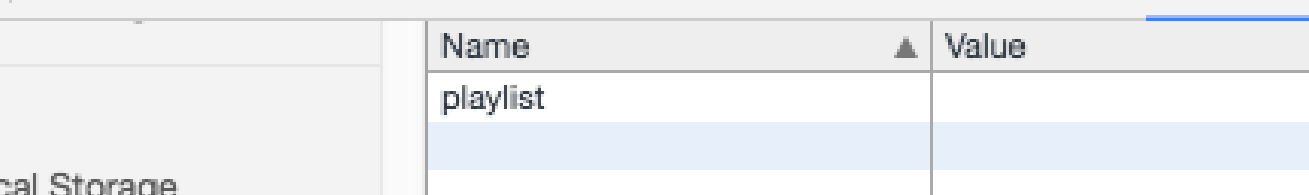
```
...  
authenticate(request, response) {  
  
  const user = userstore.getUserByEmail(request.body.email);  
  if (user) {  
    response.cookie('playlist', user.email);  
    logger.info(`logging in ${user.email}`);  
    response.redirect('/start');  
  } else {  
    response.redirect('/login');  
  }  
},  
...
```

logout

[illegible]

```
logout(request, response) {  
    response.cookie('playlist', "");  
    response.redirect('/');  
},
```

Clear the cookie



The screenshot shows the Chrome DevTools Application tab. The left sidebar displays the 'Storage' section, which is expanded to show 'Local Storage'. Under 'Local Storage', there is a single entry for 'http://localhost:4000'. The main panel on the right shows a table with two columns: 'Name' and 'Value'. The table contains one row with the name 'playlist' and an empty value cell.

Name	Value
playlist	