

Express Yourself

Objectives

- To understand the Star Wars Application
- To create a real-world application for handling reservations using Node/Express

Today's class is critical!

We will be re-using the concepts
throughout the remainder of the course

Review: A New Hope

```
$ node 11-StarWars-4/server4.js
```

Line-by-line commenting of the previous example

Demo: The Empire Strikes Back

```
$ node 12-StarWars-5/server5.js
```

- We've created a new POST route
- This route will take in JSON inputs then DO work with them.
 - In this case it will save the JSON to the database and return a JSON of the new character.

Activity: The Empire Strikes Back (5 min)

Research the following and be prepared to report back

- `body-parser`
- `.use()`
- `req.body`

What is middleware?

Software glue

body-parser

RTFM <https://www.npmjs.com/package/body-parser>

`.use()`

RTFM <http://expressjs.com/en/4x/api.html#app.use>

req.body

RTFM <http://expressjs.com/en/api.html#req.body>
&& <https://www.w3.org/Protocols/rfc2616/rfc2616-sec4.html>

Demo: Postman

- POST to <http://localhost:3000/api/new>
- Body > Text > JSON

```
{  
  "routeName": "darthvader",  
  "name": "Darth Vader",  
  "role": "Sith Lord",  
  "age": 42,  
  "forcePoints": 1900  
}
```


Activity: Postman

See 12-StarWars-5 for instructions

Demo: Return of the Jedi

```
$ node 13-StarWars-6/server6.js
```

Activity: Return of the Jedi

Research, discuss with your neighbor, and be prepared to report back on

- `.sendFile()`
- `path`
- `__dirname`

`.sendFile`

RTFM <http://expressjs.com/de/api.html#res.sendFile>

path

RTFM <https://nodejs.org/api/path.html>

__dirname

RTFM https://nodejs.org/docs/latest/api/modules.html#modules_dirname

Why build an absolute path rather than
declare a relative path?

RTFM <https://expressjs.com/en/starter/static-files.html>

What is the difference between `res.json`
and `res.sendFile`?

`res.json()` represents the HTTP response that an Express app sends when it gets an HTTP request.

`res.sendFile()` transfers the file at the given path.

Demo: The Force Awakes

```
$ node 14-FinalStarwarsApp/server.js
```

Activity: The Force Awakens

See 14-FinalStarWarsApp for instructions

Be prepared to report out

`$.post()`

RTFM <https://api.jquery.com/jquery.post/>

Review: The Force Awakens

- jQuery is used to grab the values in the form -- then POSTs these values to the API.
- The API then saves the records into the database.

The Saga https://youtu.be/ygk-kNstqK0?list=PLgJ8UgkiorCml_wKKVt5FlkTG63sQF6rr

Heroku

Real artists ship

How have we outgrown GitHub pages?

Heroku

- Will both host our files and run our server-side code
- Allows deployment of a back-end and will start up and host our web server and server-side code!
- Manages our application and gives it a public URL that anyone can access
- It's free! To a point...
- heroku.com

Activity: Deploy to Heroku (30 min)

See [HerokuGuide.md](#) for instructions

Demo: Homework

```
$ node /Users/jarednielsen/FullStack-Lesson-Plans/01-Class-Content/13-express/02-Homework/Solutions/FriendFinder/server.js
```

<http://localhost:8080/>

You will build a dating application for compatibility test.

In essence, the application saves each user's survey responses in the database, then compares the responses against everyone in the database to identify the best match.

Activity: Lunch

During the lunch break, divide into groups of four, two each for front-end and back-end development.

!important

For the long weekend:

<https://www.codeschool.com/courses/building-blocks-of-express-js>

What is the best way to learn?

~~By napping~~

By doing

Demo: Hot Restaurant

Everyone make a reservation <http://hot-restaurant.herokuapp.com/>

Note how reservation requests have been captured
<http://hot-restaurant.herokuapp.com/tables>

Also note

- <http://hot-restaurant.herokuapp.com/api/tables>
- <http://hot-restaurant.herokuapp.com/api/waitlist>

You will be building this from scratch today