## **Refactoring Animals Routes**

6 min

Okay, training wheels off! Now refactor all your /animals routes to animals.js.

## Instructions

1. Checkpoint 1 Passed

1.

Now, do the same refactoring for /animals routes into an animalsRouter Router that you create in **animals.js**.

```
app.js
```

```
const express = require('express');
const app = express();
const { getElementById, getIndexById, updateElement,
  seedElements, createElement } = require('./utils');
const PORT = process.env.PORT || 4001;
app.use(express.static('public'));
const expressionsRouter = require('./expressions.js');
app.use('/expressions', expressionsRouter);
const animalsRouter = require('./animals.js');
app.use('/animals', animalsRouter);
app.listen(PORT, () => {
 console.log(`Server is listening on ${PORT}`);
});
```

```
expressions.js
const express = require('express');
const { getElementById, getIndexById, updateElement,
 seedElements, createElement } = require('./utils');
let expressions = [];
seedElements(expressions, 'expressions');
expressionsRouter = express.Router();
// Get all expressions
expressionsRouter.get('/', (req, res, next) => {
 res.send(expressions);
});
// Get a single expression
expressionsRouter.get('/:id', (req, res, next) => {
 const foundExpression = getElementById(req.params.id, expressions);
 if (foundExpression) {
    res.send(foundExpression);
 } else {
   res.status(404).send();
 }
});
// Update an expression
expressionsRouter.put('/:id', (req, res, next) => {
 const expressionIndex = getIndexById(req.params.id, expressions);
 if (expressionIndex !== -1) {
```

```
updateElement(req.params.id, req.query, expressions);
    res.send(expressions[expressionIndex]);
  } else {
    res.status(404).send();
  }
});
// Create an expression
expressionsRouter.post('/', (req, res, next) => {
  const receivedExpression = createElement('expressions', req.query);
  if (receivedExpression) {
    expressions.push(receivedExpression);
    res.status(201).send(receivedExpression);
  } else {
    res.status(400).send();
  }
});
// Delete an expression
expressionsRouter.delete('/:id', (req, res, next) => {
  const expressionIndex = getIndexById(req.params.id, expressions);
  if (expressionIndex !== -1) {
    expressions.splice(expressionIndex, 1);
    res.status(204).send();
  } else {
    res.status(404).send();
  }
});
module.exports = expressionsRouter;
```

```
animals.js
const express = require('express');
const { getElementById, getIndexById, updateElement,
  seedElements, createElement } = require('./utils');
let animals = [];
seedElements(animals, 'animals');
animalsRouter = express.Router();
// Get all animals
animalsRouter.get('/', (req, res, next) => {
 res.send(animals);
});
// Get a single animal
animalsRouter.get('/:id', (req, res, next) => {
  const animal = getElementById(req.params.id, animals);
  if (animal) {
    res.send(animal);
  } else {
    res.status(404).send();
 }
});
// Create an animal
animalsRouter.post('/', (req, res, next) => {
  const receivedAnimal = createElement('animals', req.query);
  if (receivedAnimal) {
```

```
animals.push(receivedAnimal);
    res.status(201).send(receivedAnimal);
  } else {
    res.status(400).send();
  }
});
// Update an animal
animalsRouter.put('/:id', (req, res, next) => {
  const animalIndex = getIndexById(req.params.id, animals);
  if (animalIndex !== -1) {
    updateElement(req.params.id, req.query, animals);
    res.send(animals[animalIndex]);
  } else {
    res.status(404).send();
  }
});
// Delete a single animal
animalsRouter.delete('/:id', (req, res, next) => {
  const animalIndex = getIndexById(req.params.id, animals);
  if (animalIndex !== -1) {
    animals.splice(animalIndex, 1);
    res.status(204).send();
  } else {
    res.status(404).send();
  }
});
module.exports = animalsRouter;
```