

## Getting A Single Expression

12 min

Routes become much more powerful when they can be used dynamically. Express servers provide this functionality with named *route parameters*. Parameters are route path segments that begin with `:` in their Express route definitions. They act as [wildcards](#), matching any text at that path segment. For example `/monsters/:id` will match both `/monsters/1` and `/monsters/45`.

Express parses any parameters, extracts their actual values, and attaches them as an object to the request object: `req.params`. This object's keys are any parameter names in the route, and each key's value is the actual value of that field per request.

```
const monsters = {  
  hydra: { height: 3, age: 4 },  
  dragon: { height: 200, age: 350 }  
};  
// GET /monsters/hydra  
app.get('/monsters/:name', (req, res, next) => {  
  console.log(req.params); // { name: 'hydra' }  
  res.send(monsters[req.params.name]);  
});
```

In this code snippet, a

Preview: Docs Loading link description

[.get\(\)](#)

route is defined to match `/monsters/:name` path. When a GET request arrives for `/monsters/hydra`, the callback is called. Inside the callback, `req.params` is an object with the key `name` and the value `hydra`, which was present in the actual request path.

The appropriate monster is retrieved by name (the object key) from the `monsters` object and sent back to the client with `res.send()`.

### Instructions

1. Checkpoint 1 Passed

1.

Create a GET `/expressions/:id` get route that you will use to send back a single expression. You can use `req.params` object and the pre-written helper function `getElementById(id, array)` to find the correct expression before sending it back.

For instance, to find ID 560 from expressions, you would call `getElementById(560, expressions);`. This function returns the element object if it exists and undefined if it does not.

Don't forget to restart your server when you make changes to **app.js**. To test the Express Yourself machine, use the box in the upper-left corner to send a GET request for a specified ID.

Hint

The correct ID of the expression can be found using `req.params.id`.

**app.js**

```
const express = require('express');
```

```
const app = express();
```

```
// Serves Express Yourself website
```

```
app.use(express.static('public'));
```

```
const { getElementById, seedElements } = require('./utils');
```

```
const expressions = [];
```

```
seedElements(expressions, 'expressions');
```

```
const PORT = process.env.PORT || 4001;
```

```
app.get('/expressions', (req, res, next) => {
```

```
  res.send(expressions);
```

```
});
```

```
// Add a new call to app.get('/expressions/:id') here
```

```
app.get('/expressions/:id', (req, res, next) => {
```

```
  const response = getElementById(req.params.id, expressions);
```

```
  res.send(response);
```

```
})
```

```
app.listen(PORT, () => {
```

```
console.log(`Listening on port ${PORT}`);  
});
```