Lab 5.2 - Prototypal Inheritance

The labs-2 folder contains an **app.js** file with the following:

```javascript
const assert = require('assert')

// TODO:
// implement a way to create a prototype chain
// of leopard -> lynx -> cat
// leopard prototype must have ONLY a hiss method
// lynx prototype must have ONLY a purr method
// cat prototype must have ONLY a meow method

const felix = null //TODO replace null with instantiation of a cat
felix.meow() // prints Felix the cat: meow
felix.purr() // prints Felix the cat: prrr
felix.hiss() // prints Felix the cat: hsss

// prototype checks, do not remove
const felixProto = Object.getPrototypeOf(felix)
const felixProtoProto = Object.getPrototypeOf(felixProto)
const felixProtoProtoProto = Object.getPrototypeOf(felixProtoProto)

assert(Object.getOwnPropertyNames(felixProto).length, 1)
assert(Object.getOwnPropertyNames(felixProtoProto).length, 1)
assert(Object.getOwnPropertyNames(felixProtoProto).length, 1)
assert(typeof felixProto.meow, 'function')
assert(typeof felixProtoProto.purr, 'function')
assert(typeof felixProtoProtoProto.hiss, 'function')
console.log('prototype checks passed!')
```

Using any of the approaches described create a prototypal inheritance chain and then create an instance from that chain, and assign it to `felix` such that:
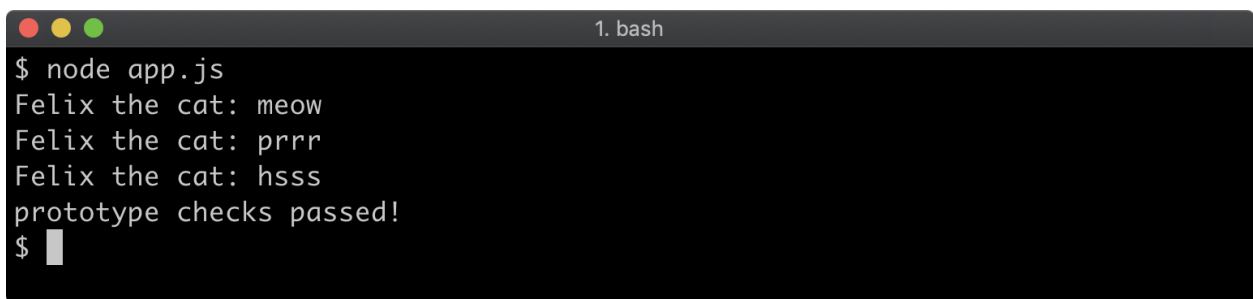
- The prototype of `felix` should be an object with a `meow` method
- The prototype of that object should be an object with a `purr` method
- The prototype of that object should be an object with a `hiss` method

When ready, open a terminal, navigate to the labs-2 folder and run your implementation with

`node app.js`

This program will not run correctly, it will throw exceptions, until the implementation is complete.

If correctly implemented `app.js` should output: `prototype checks passed!`:

```
$ node app.js
Felix the cat: meow
Felix the cat: prrr
Felix the cat: hsss
prototype checks passed!
$
```

It's not necessary for `meow`, `purr` and `hiss` methods `console.log` exactly the same output, or even to output anything at all. Making Felix meow, purr and hiss is a nice-to-have. The most important thing is that the prototype chain is correctly set up.

         THE LINUX FOUNDATION