67-328 Building Distributed Applications

Views Reflection

- Assume you are doing a PUT of a new item into a collection of cats, and the full set of cats will be returned to be displayed
- Reorder the following set of steps
- Note whether each step is executed on the client or server
- Indicate where network operations go between two steps.
 - 1. success: function(result)
 - 2. \$ajax()
 - 3. res.render()
 - 4. catsModel.push(newcat)
 - 5. <% for (var x = 0 ... %>

– What does "render" mean?

 Does the order of the following in red matter? Why?

```
app.use(morgan('tiny'));
```

```
// Load all routes in the routes directory
fs.readdirSync('./routes').forEach(function (file){
    // There might be non-js files in the directory that
    should not be loaded
    if (path.extname(file) == '.js') {
      require('./routes/'+ file).init(app);
    }
});
```

// Handle static files
app.use(express.static(___dirname + '/public'));

- Regarding: app.use(express.static(___dirname + '/public'));
- Why ___dirname+'/public'?
- Why not "."?
- Why not _____dirname+'/views'?

dirname and .

- __dirname is the directory name of the current module. So in this case, your app.js.
- "." is the directory the terminal shell was in from which you ran node
- With require, e.g. require(./routes/ducks.js), the file is always relative to the current file.
 - So you don't need _____dirname

RESTful style

- An architectural pattern (i.e. a style of design)
- Client-server
- The web app is thought of as being comprised of resources
- Resources are addressable
- HTTP methods adhere to the HTTP Standard
 - E.g. get, put, delete, post respect safety and idempotence
- The client-server communication is stateless
 - No client context is kept on the server
 - This is a different approach than keeping sessions
 - For convenience, many otherwise REST*ful* web services keep sessions (e.g. for user logins).

Question 4: Restful URL language

- Critique your URL language for today's homework in terms of these four Restful characteristics:
- Addressability
 - Interesting aspects of your service are immediately accessible by a unique URI.
- Granularity
 - How fine-grained are the interesting aspects of your service addressable?
- Transparency
 - The meaning and context of a path are easily apparent to those who did not design the site
- Persistence
- Addresses of resources on your site do not change over time. Source: *Restful Web Services by Leonard Richardson and Sam Ruby (O'Reilly Media, 2007).*