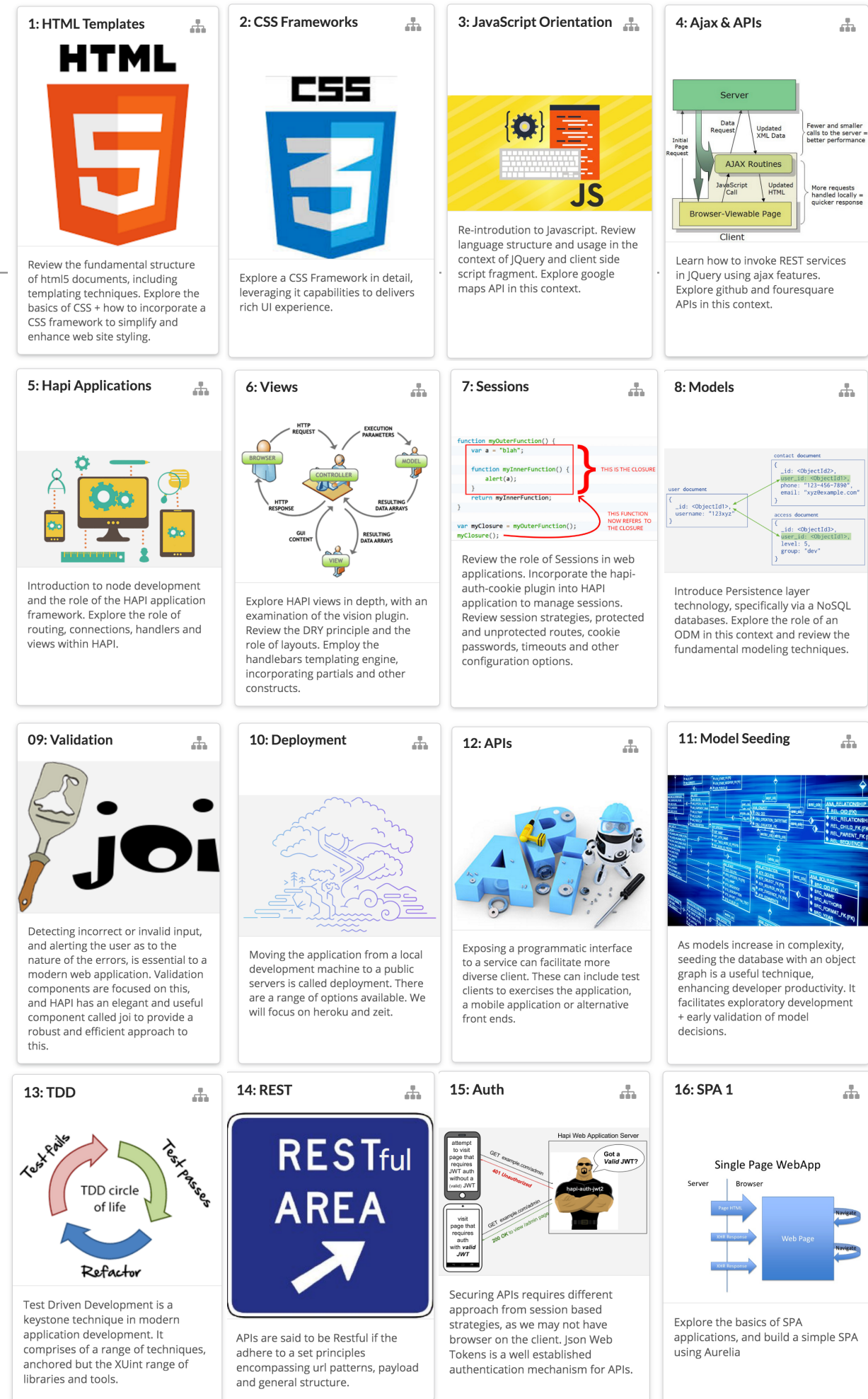


Enterprise Web Development

House of Cards

- Each topic builds on previous topics
- Objective: *Transfer the skills to enable you to design, build, secure and deploy a modern web application + API.*



1: HTML Templates



Review the fundamental structure of html5 documents, including templating techniques. Explore the basics of CSS + how to incorporate a CSS framework to simplify and enhance web site styling.

2: CSS Frameworks



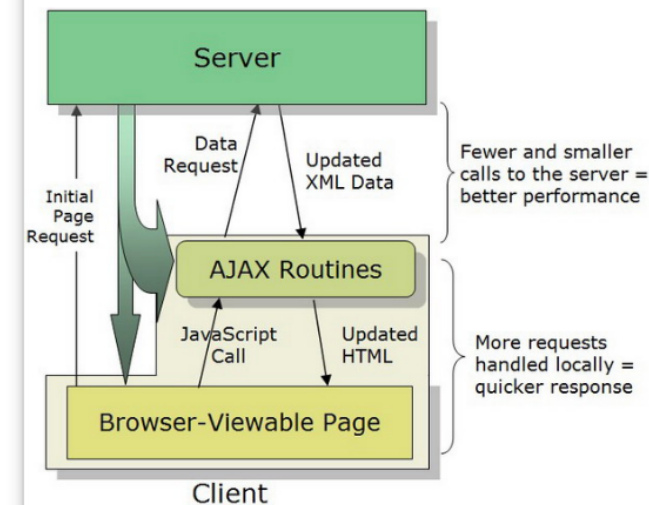
Explore a CSS Framework in detail, leveraging its capabilities to deliver a rich UI experience.

3: JavaScript Orientation



Re-introduction to Javascript. Review language structure and usage in the context of JQuery and client side script fragment. Explore google maps API in this context.

4: Ajax & APIs



Learn how to invoke REST services in JQuery using ajax features. Explore github and foursquare APIs in this context.

- Revisit Html + Css, focusing on templates + css Frameworks
- Crash course in Javascript Fundamentals
- Learn basics of JQuery
- Build Web Sites that interact with web APIs

• Tools:

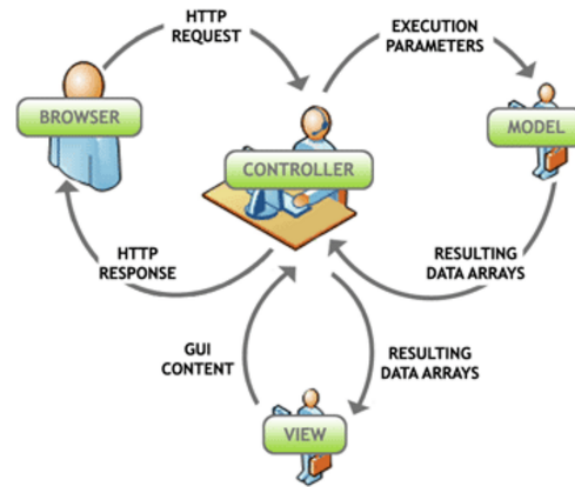
- semantic-ui
- jquery
- Chrome + chrome developer tools + JSON View
- Web Storm

5: Hapi Applications



Introduction to node development and the role of the HAPI application framework. Explore the role of routing, connections, handlers and views within HAPI.

6: Views



Explore HAPI views in depth, with an examination of the vision plugin. Review the DRY principle and the role of layouts. Employ the handlebars templating engine, incorporating partials and other constructs.

7: Sessions



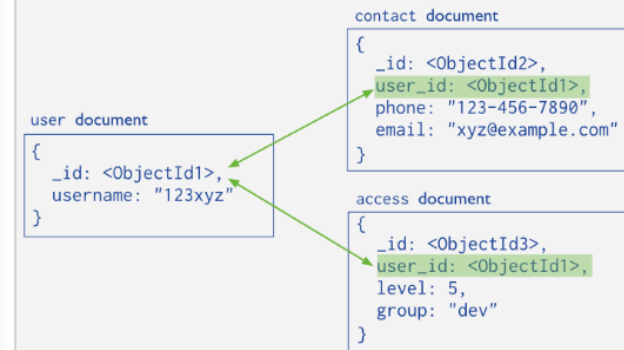
```
function myOuterFunction() {  
  var a = "blah";  
  function myInnerFunction() {  
    alert(a);  
  }  
  return myInnerFunction;  
}  
  
var myClosure = myOuterFunction();  
myClosure();
```

THIS IS THE CLOSURE

THIS FUNCTION NOW REFERS TO THE CLOSURE

Review the role of Sessions in web applications. Incorporate the hapi-auth-cookie plugin into HAPI application to manage sessions. Review session strategies, protected and unprotected routes, cookie passwords, timeouts and other configuration options.

8: Models



Introduce Persistence layer technology, specifically via a NoSQL databases. Explore the role of an ODM in this context and review the fundamental modeling techniques.

09: Validation



Detecting incorrect or invalid input, and alerting the user as to the nature of the errors, is essential to a modern web application. Validation components are focused on this, and HAPI has an elegant and useful component called joi to provide a robust and efficient approach to this.

10: Deployment



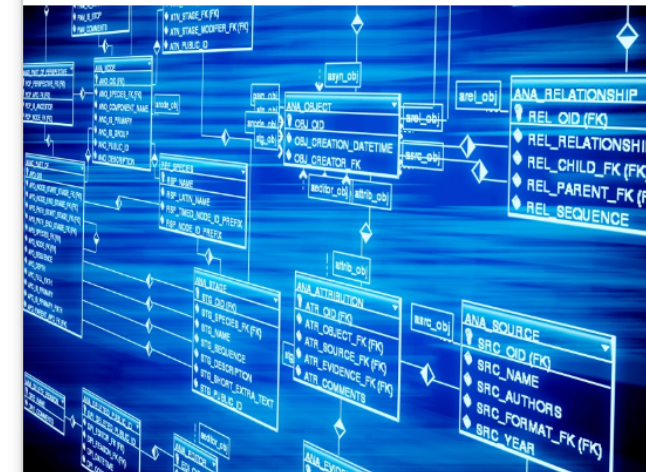
Moving the application from a local development machine to a public servers is called deployment. There are a range of options available. We will focus on heroku and zeit.

12: APIs



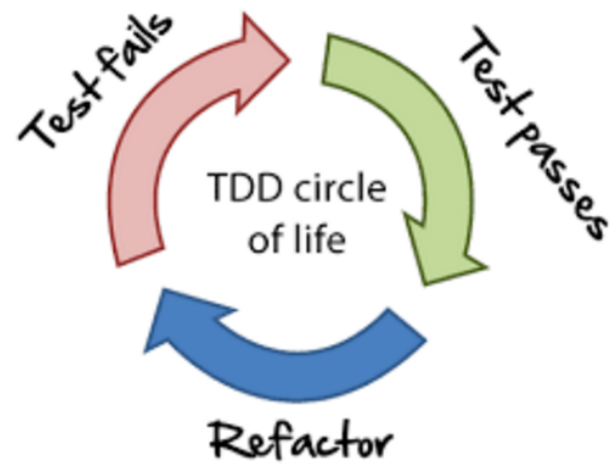
Exposing a programmatic interface to a service can facilitate more diverse client. These can include test clients to exercises the application, a mobile application or alternative front ends.

11: Model Seeding



As models increase in complexity, seeding the database with an object graph is a useful technique, enhancing developer productivity. It facilitates exploratory development + early validation of model decisions.

13: TDD



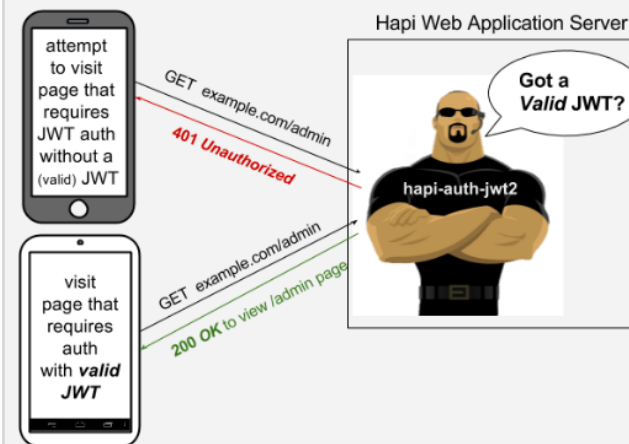
Test Driven Development is a keystone technique in modern application development. It comprises of a range of techniques, anchored but the XUnit range of libraries and tools.

14: REST



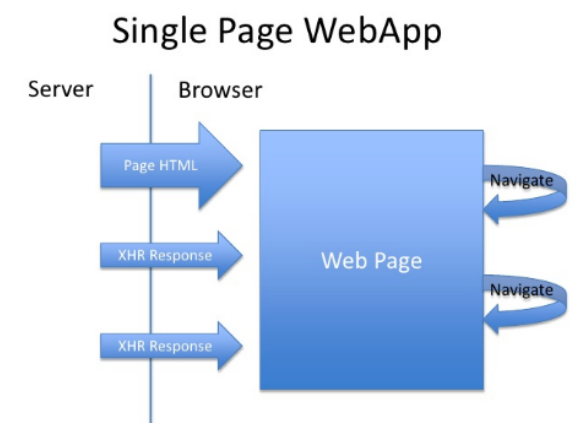
APIs are said to be Restful if the adhere to a set principles encompassing url patterns, payload and general structure.

15: Auth



Securing APIs requires different approach from session based strategies, as we may not have browser on the client. Json Web Tokens is a well established authentication mechanism for APIs.

16: SPA 1



Explore the basics of SPA applications, and build a simple SPA using Aurelia