

Module Overview



1. Introducing HTML	2. Introducing CSS	3. The Box Model	4. Navigation
web client/server browser-based document elements attribute href images reading state inline	markup style function objectives rules selectors declarations properties values cascade inheritance	content padding border margin style width values position layout float left right	HTML versions header main primary secondary footer semantic elements front style guide
5. HTML Templates	6. CSS Frameworks	7. Applications	8. Model View Controller
server hosting deployment one local server dry template engine app partials layouts	modern browser elements UI component layout grid includes value form images user int	client usage frameworks connected via api request response front-end back-end	model view controller using template layout database save entity management
9. Forms	10. Sessions	11. Git, GitHub & S3 bucket	12. Deployment
forms get post data template logic submit outcome 404	cookies session tracking cookie storage high logical session-state clearing	repository local storage push pull stage control continuous log history	number of servers instances load balancer log output management shutdown

Overview of the modules
topics

Module Topics



ICT Skills 1

Javascript · node · express ·
git · github · glitch

1: Introducing Javascript



An introduction to the very basics of the Javascript Language

2a: Javascript Arrays



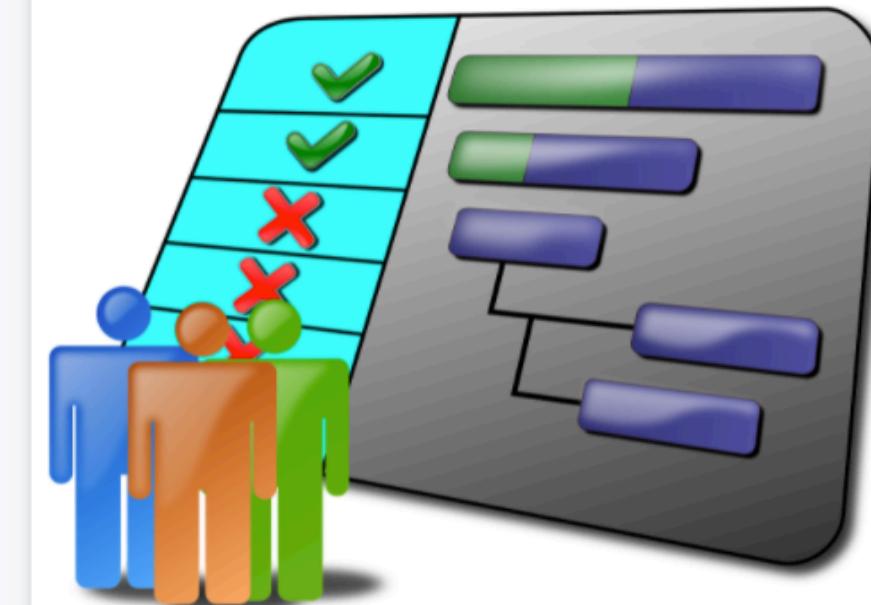
	myCar
0	Chev
1	Ford
2	Buick
3	Lincoln
4	Truck

 ← Name of the array
← Data
← Index number

Comparison of an array to a column of data

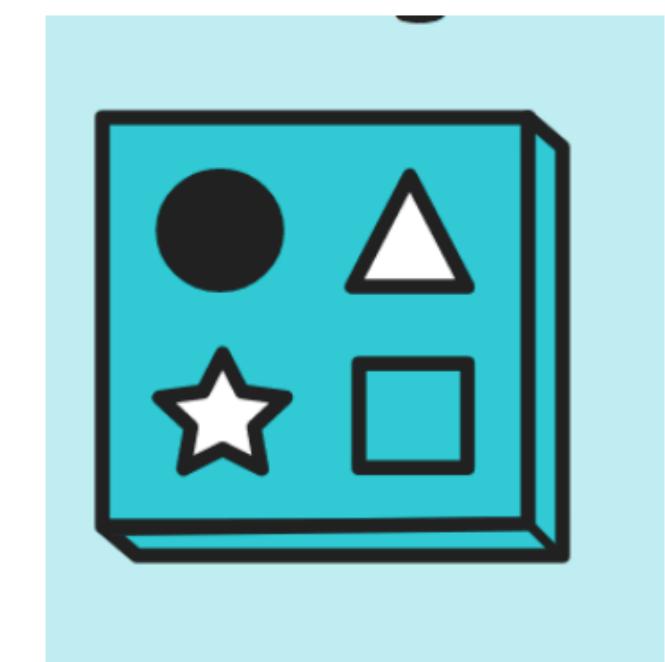
Exploring Javascript arrays in detail

2b: Glitch Overview



Overview of the module + introduction to the Glitch platform

3: Web Applications

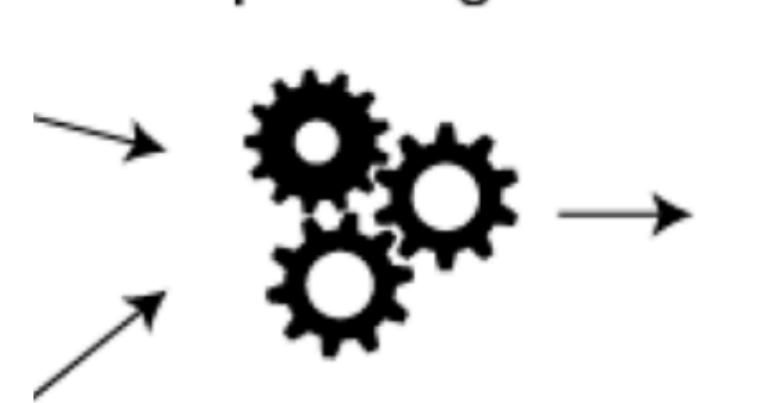


Build your first Glitch app, a simple static playlist web site.

4: Templates & Routes

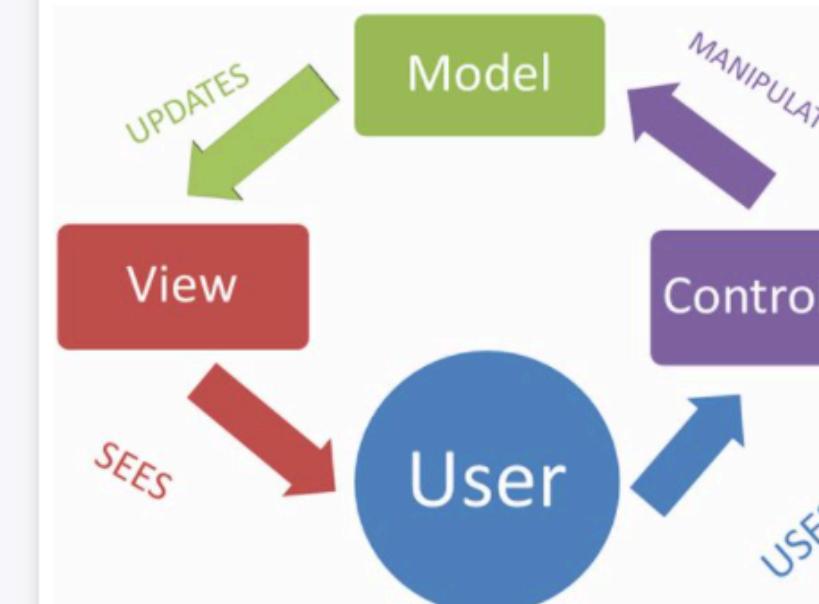


Template engine



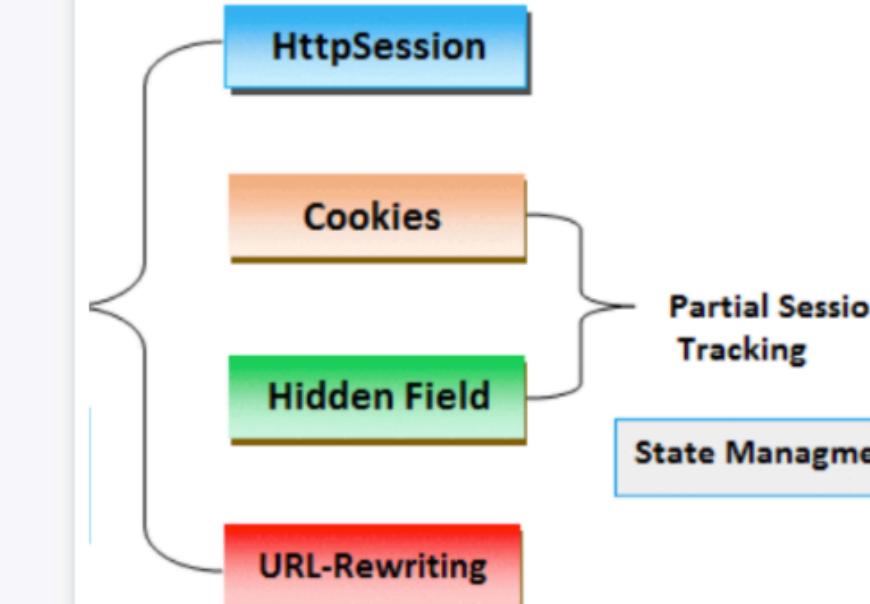
Explore templating in more detail. Enhanced the routing behaviour

5: Forms



Display a form, accept user input.

6: Sessions



Implement user account management using sessions.

Introducing Javascript



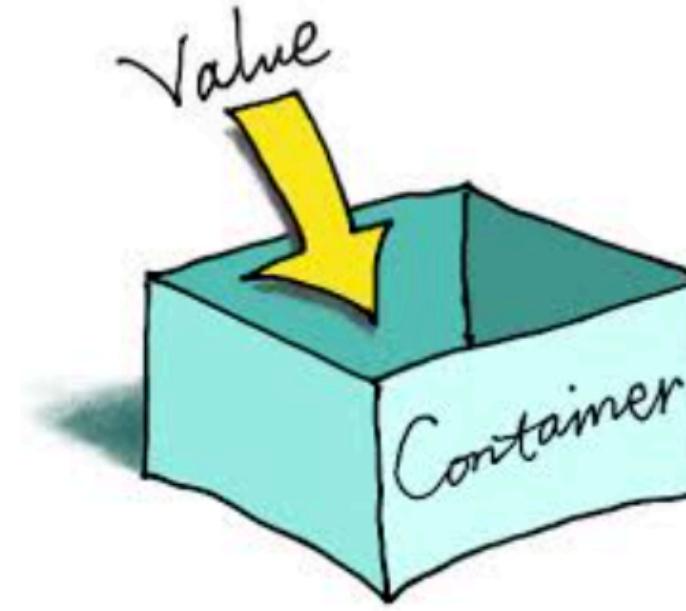
JS Introduction



JavaScript

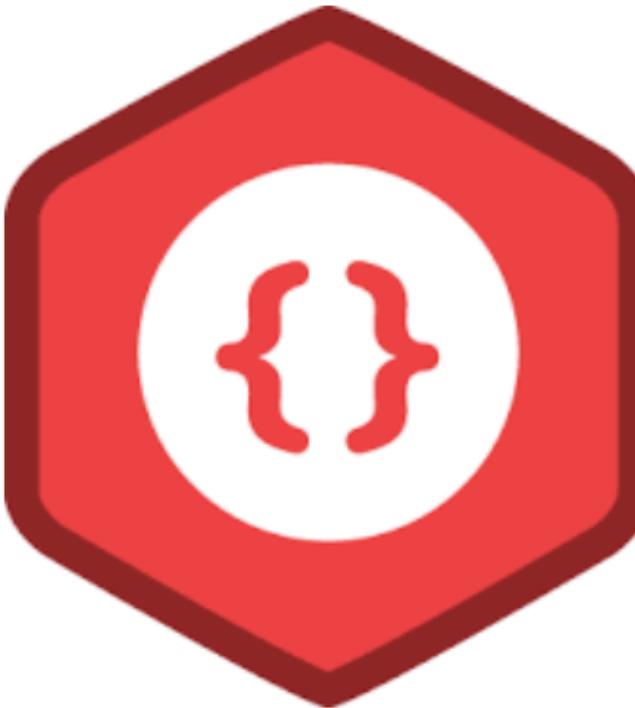
Place javascript in its proper context, and explore its relationship to the...

Variables & Logic



Explore the javascript variables, including the basic types, conversion a...

Const, Let & Objects



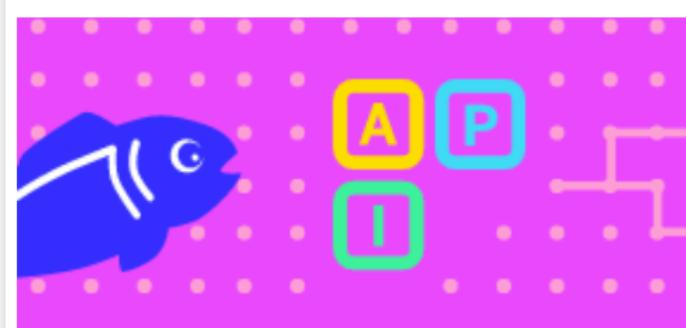
Using const & let. Declaring and using objects.

Lab-01 JS Intro



Background & Tools, Variables & Boolean Logic

1: Introducing Javascript



An introduction to the very basics of the Javascript Language

Javascript Variables, Objects & Methods

Variables & Objects Review



A concise tour of the structure of variables & objects in Javascript

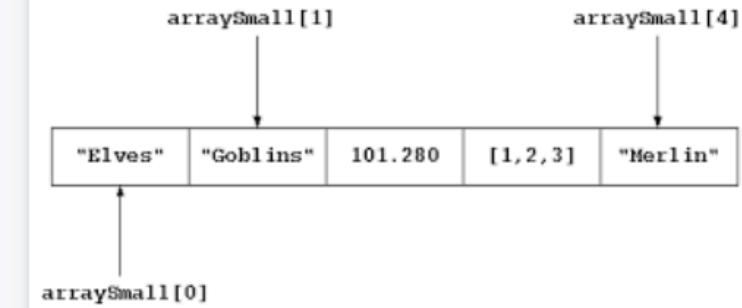
Methods & Arrays Review

```
        ,  
meow: function () {  
    console.log(this.sound);  
    return this.age;  
},
```

A concise look at methods & Arrays

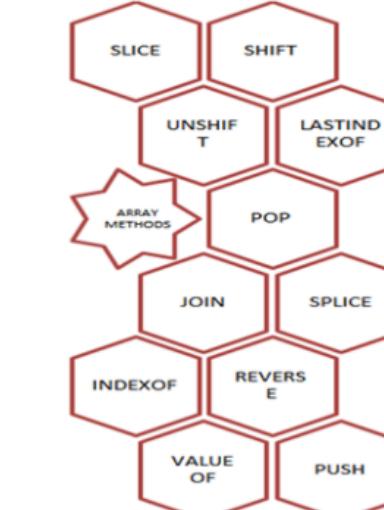
Javascript Arrays

Arrays: Basics



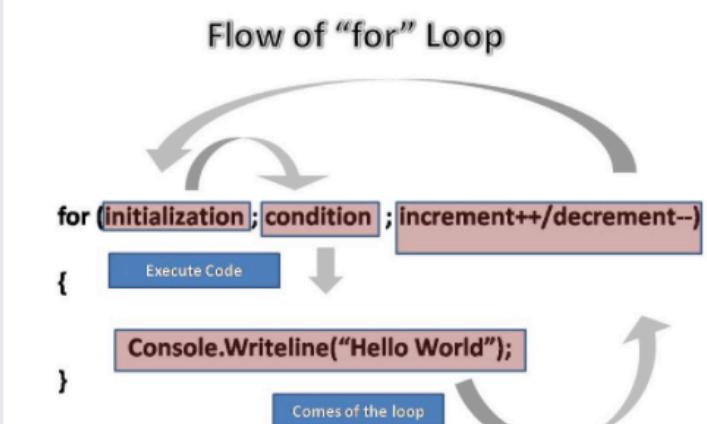
Creating, accessing, adding to and removing from arrays.

Array Methods



Exploring length, slice, concat, join, indexOf, lastIndexOf

Array Iteration



Using for, while and do-while to iterate over an array

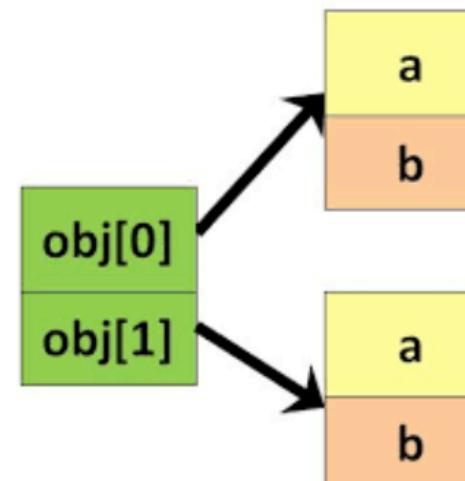
2: Javascript Arrays

myCar	
0	Chev
1	Ford
2	Buick
3	Lincoln
4	Truck

Comparison of an array to a column of data

Exploring Javascript arrays in detail

Arrays of Objects



Arrays of more complex data structures, including nested objects.

Lab-02 JS Arrays

myCar	
0	Chev
1	Ford
2	Buick
3	Lincoln
4	Truck

Comparison of an array to a column of data

Array Basics, Array Methods & Iteration

Introducing Glitch



Module Overview



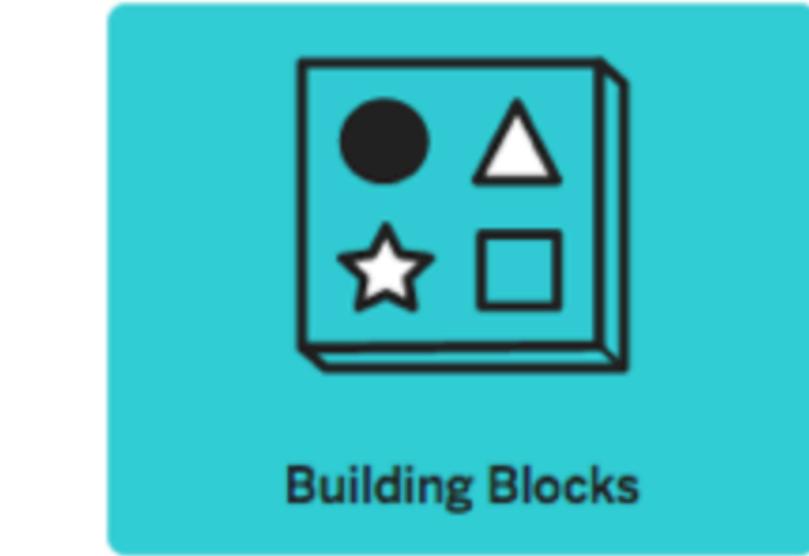
Overview of the modules topics

Introducing Glitch



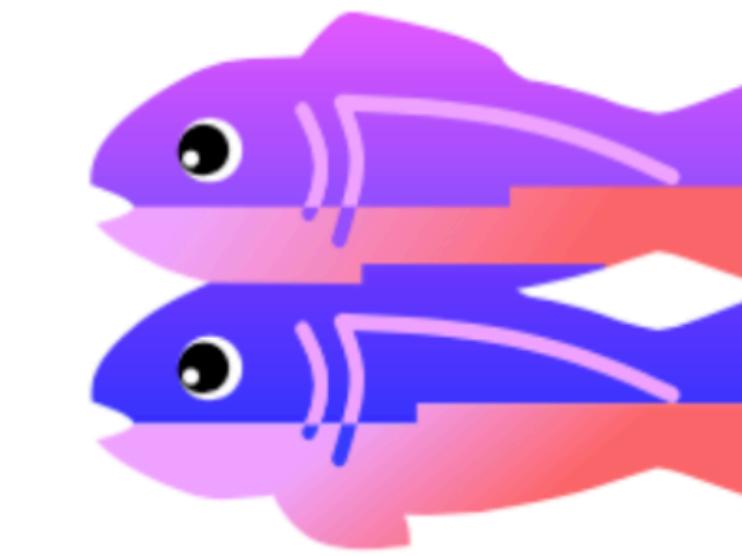
What is it, what role it plays, why was it built.

Guided Tour



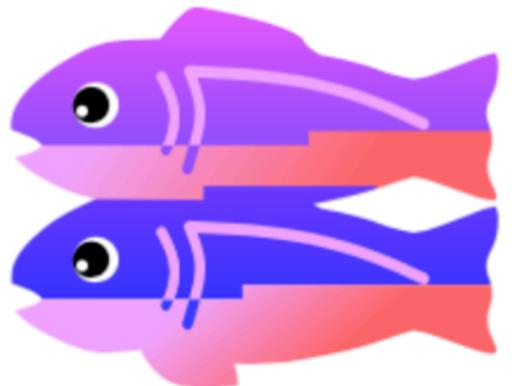
A look at the components of a glitch project. Also the types of...

Lab-00a Glitch Intro



Create, modify and view your first Glitch project.

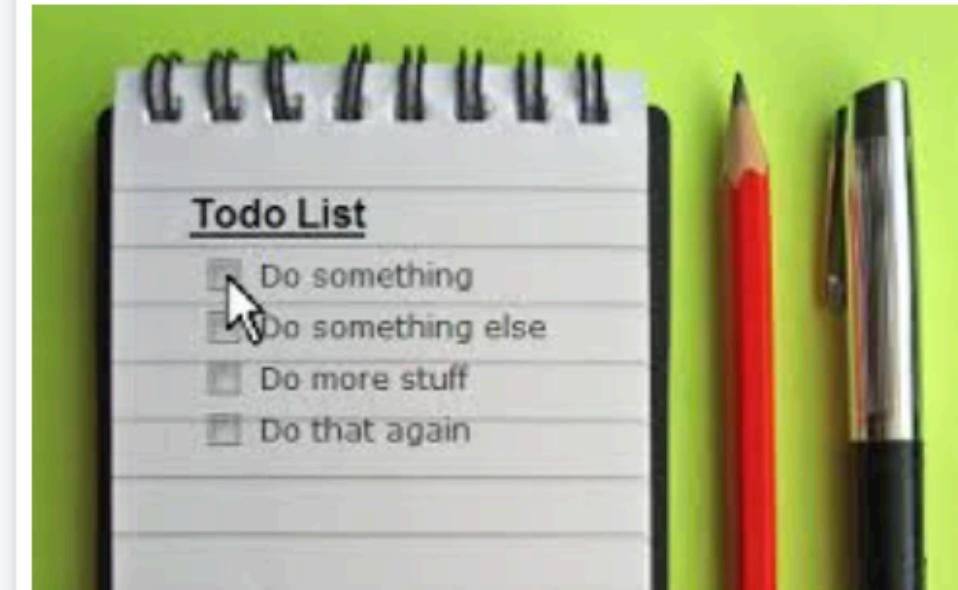
2b: Glitch Overview



Overview of the module + introduction to the Glitch platform



Lab-00b Todo 1



Create a Todo application in Glitch

Lab-00c Todo 2



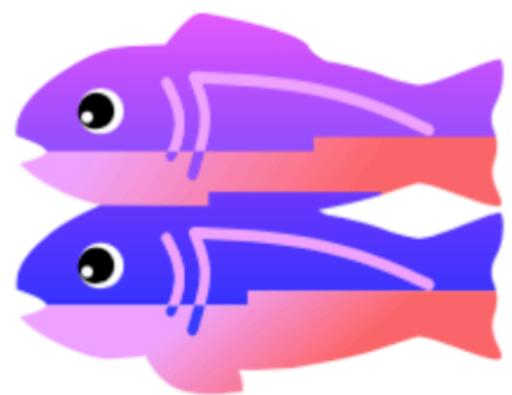
Incorporate IDs into the todo model

Lab-00d Todo 3



Incorporate Sessions / User accounts into Todo

2b: Glitch Overview



Overview of the module + introduction to the Glitch platform



Playlist 1

Web App Introduction



Structure of a web app:
Front-end Vs Backend.
Routers, Models, Views,...

Front-end



Views: Handlebars layouts,
partials and templates

Modules



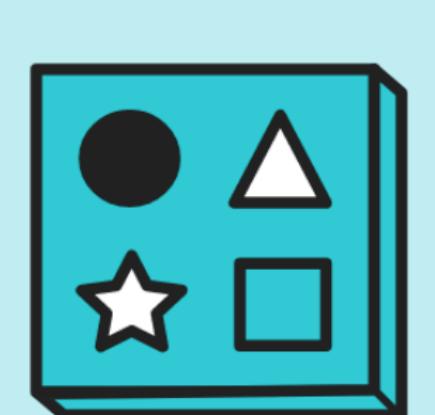
The backend will use a
modular approach, relying
on specific mechanism to..

Back-end



Server, routes + controllers

3: Web Applications



Build your first Glitch app, a
simple static playlist web
site.

Lab-03a Playlist 1



Import and run a new
starter project. Extend this
project to include multiple..

Lab-03b WebStorm



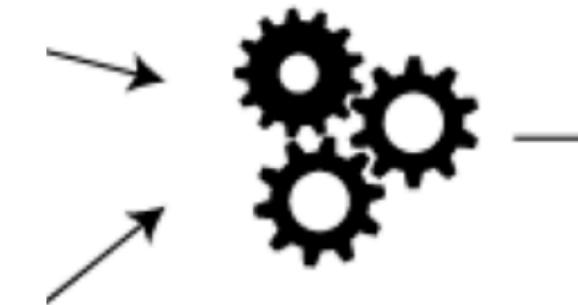
Using WebStorm instead of
Glitch for Web App
development

Views, templating + JSON Models



Templates

Template engine



Templates enable dynamic composition of views from layouts, partials and...

Json

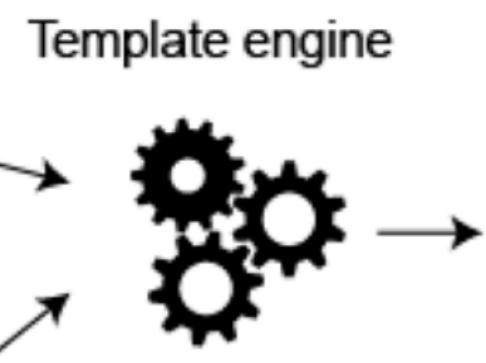
```
"playlistCollection": [
  {
    "title": "Beethoven Sonatas",
    "songs": [
      {
        "title": "Piano Sonata No. 3",
        "artist": "Beethoven"
      },
      {
        "title": "Piano Sonata No. 7",
        "artist": "Beethoven"
      },
      {
        "title": "Piano Sonata No. 10",
        "artist": "Beethoven"
      }
    ]
},
```

JSON is notation for representing javascript objects in a simple literal...

Controller, Routes & Models



4: Templates & Routes



Explore templating in more detail. Enhanced the routing behaviour

Dashboard

Beethoven Sonatas	
Song	Artist
Piano Sonata No. 3	Beethoven
Piano Sonata No. 7	Beethoven
Piano Sonata No. 10	Beethoven

Beethoven Concertos	
Song	Artist
Piano Concerto No. 0	Beethoven
Piano Concerto No. 4	Beethoven
Piano Concerto No. 6	Beethoven

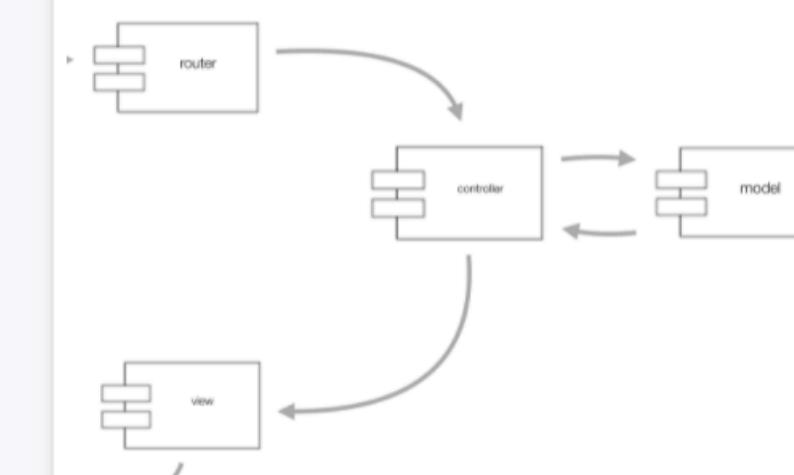
Review the dashboard controller in detail.

Playlist

Beethoven Sonatas	
Song	Artist
Piano Sonata No. 3	Beethoven
Piano Sonata No. 7	Beethoven
Piano Sonata No. 10	Beethoven

Revise the Dashboard to render playlist without their contents. Use a new playli...

MVC



Explore the MVC Pattern in action in Playlist 2

Lab-04 Playlist 2



Refactor the dashboard controller to show summary on of the playlists + link to..



Forms

Delete Song

Artist	
Beethoven	<button>Delete Song</button>
Beethoven	<button>Delete Song</button>
Beethoven	<button>Delete Song</button>

How to remove a song from
the playlist

Forms Design



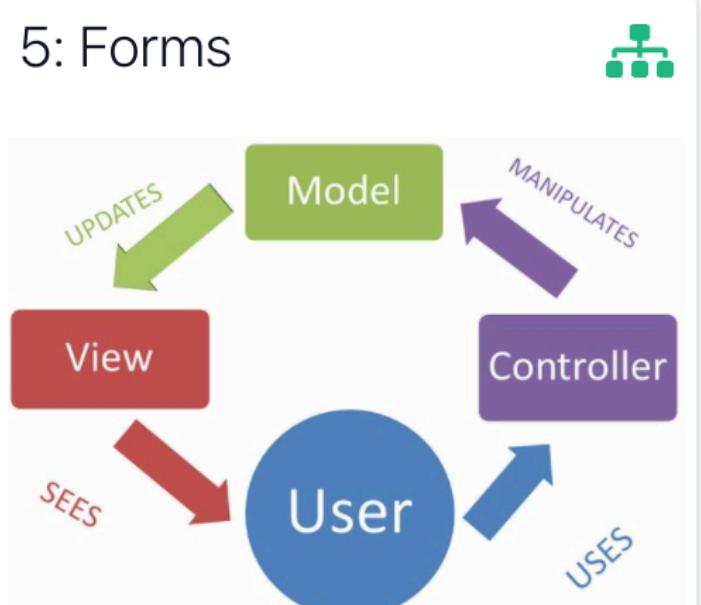
How a form UI is laid out in
HTML using Semantic UI

Form Programming



How to accept user input
from a form and process it
in a controller

5: Forms



Display a form, accept user
input.

Lab-05 Playlist 3

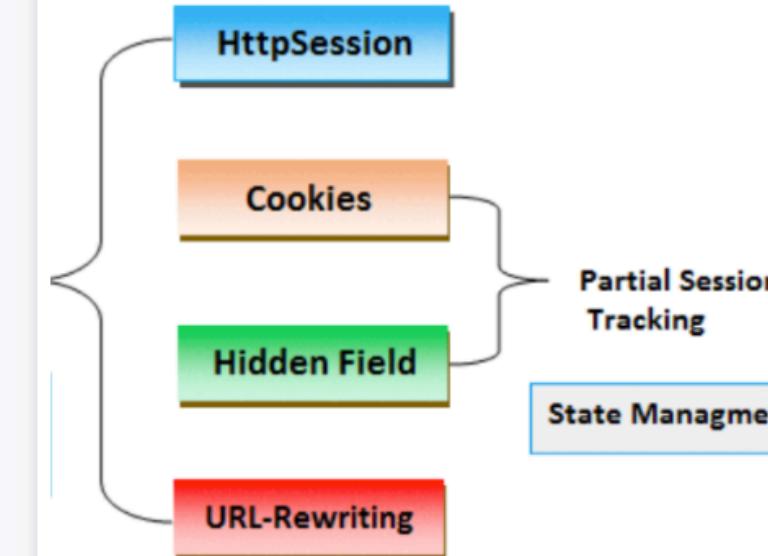


Enable Songs and Playlists
to be added via simple
forms.



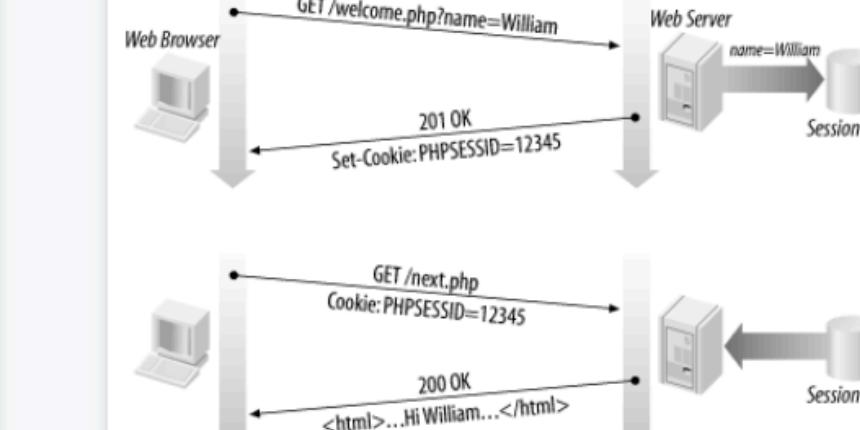
Reintroducing Sessions

Sessions Introduction



Common techniques for implementing sessions.

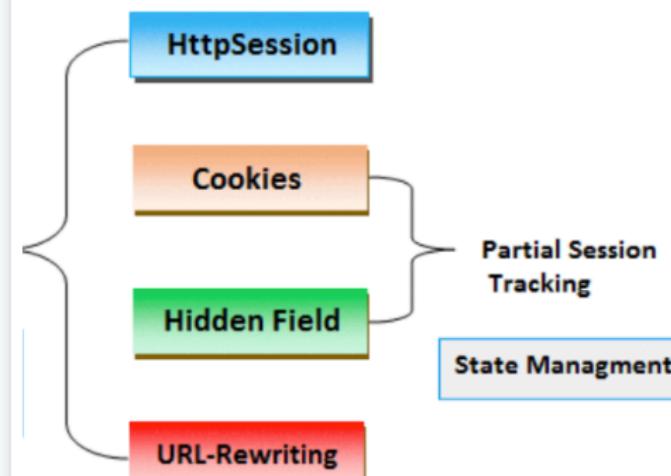
Using Sessions



Refactor the application to support sessions

Implementing Sessions

6: Sessions



Implement user account management using sessions.

Sessions UX



New forms needed to enable the user to signup / login

Creating Sessions



The API to create, access and destroy sessions.

Lab-06a Playlist 4

Introduce Sessions onto the Playlist application, enabling user accounts a...

Lab-06b Playlist 5

Implement a feature to update an existing Song

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forms get post data template logic submit outcome 404	cookies session tracking cookie storage high logical session state check	repository local storage push pull stage control continuous log history	number of servers instances load balancer log output management shutdown

Overview of the modules
topics