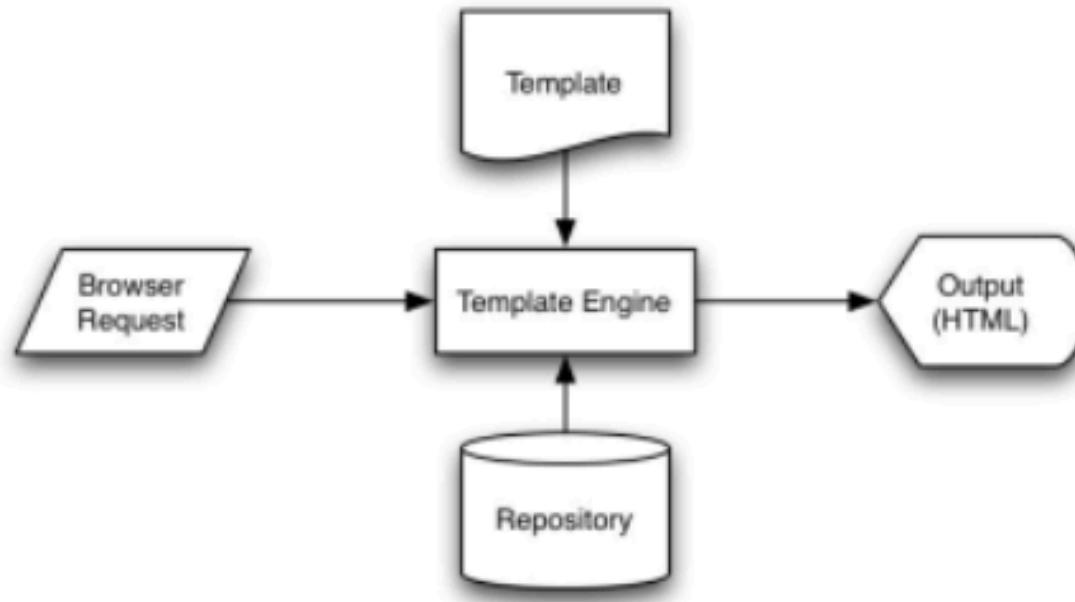


Templates

Templates



EJS · dry · wet · engine ·
partials · includes · layouts ·
paths · compile



Welcome to the App Bundle Store

Home Apps Directions

This store brings you *great app bundles* week after week. We select the best power user apps from a broad range of suppliers and combine them into great deals. These are the highest quality apps from the best publishers, at great prices.

Whether you are interested in gaming or graphics design, software development or media production - we have the bundle for you. Each [app bundle](#) is designed to compliment the others, delivering you an exciting take on a scene.

 Our guarantee: at the store, we're committed to providing you, with an exceptional quality and reliability. Every application is checked in detail for stability, usability and inter-operability. If you are unhappy with any individual app in a bundle we will refund you the full amount for the complete suite, no questions asked.

Favourites

These are some of our favourites

- Hype by Tumult
- Webstorm by Idea
- Sublime, by sublimetext.com
- Desktop Utility by Sweet Productions

Favourites

We will be reviewing these favourites in the coming weeks, so please check in again to find out why these are our favourite apps.

Why not come in and walk around the store? Directions are included below.

Contact us at : bundle@store.com, or visit us: [directions](#)

Weekly Deals

Business Bundle

Here comes the next bundle for march.



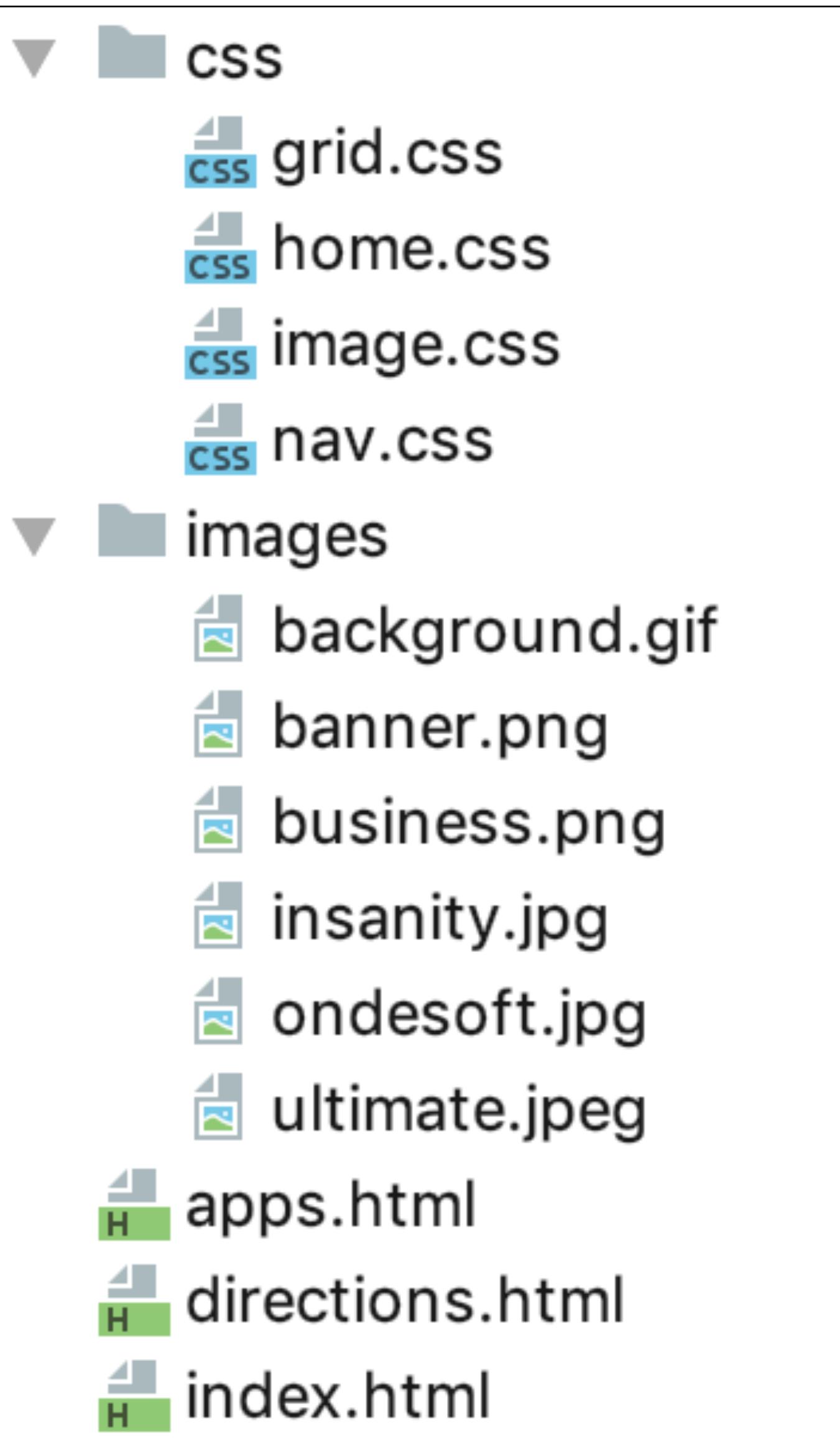
This time it's macware who publish a bundle. The so called macware Business Bundle contains 6 apps at a price of only €29.99 instead of €199.94. So you can save around 84%.

Insanity Deal

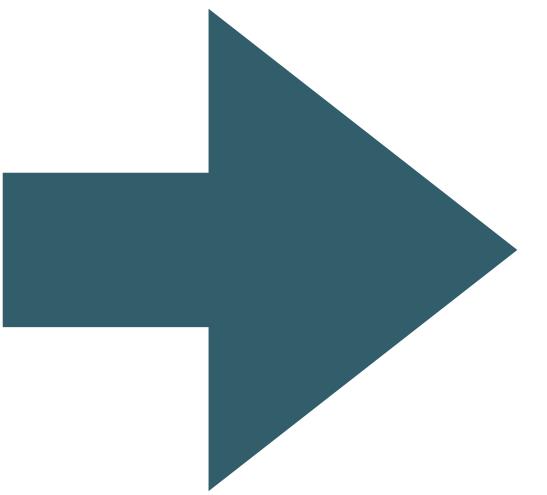


With the new €5 Insanity Deals from

Bundlehunt you receive every day a highly reduced app for €5 only with savings up to 75%. Not a real bundle but, as there are multiple apps for only €5 each, one new per day, for the days to come.



```
▼ bundle-store ~/repos/mo  
  ▼ css  
    grid.css  
    home.css  
    image.css  
    nav.css  
  ▶ images  
  apps.html  
  directions.html  
  index.html
```



```
▼ bundle-store-ejs ~/repo  
  ▼ public  
    ▼ css  
      grid.css  
      home.css  
      image.css  
      nav.css  
    ▶ images  
    ▼ partials  
      _footer.ejs  
      _header.ejs  
      _secondary.ejs  
      _layout.ejs  
      apps.ejs  
      directions.ejs  
      index.ejs  
    harp.json
```

Templates Why?

Welcome to the App Bundle Store

Home Apps Directions

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Why not come in and walk around the store? Directions

Contact us at : bundle@store.com, or visit us:

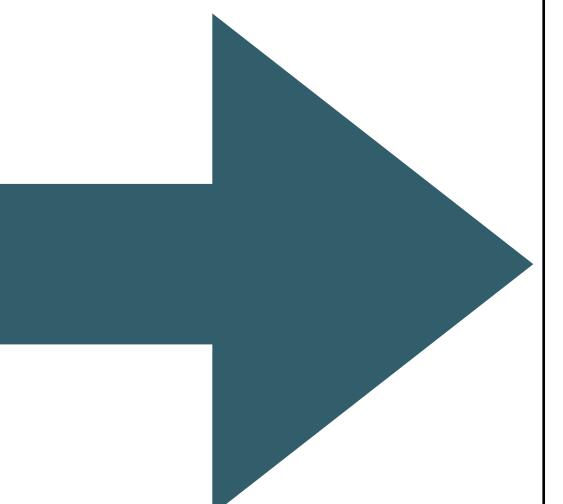
css

- grid.css
- home.css
- image.css
- nav.css

images

- background.gif
- banner.png
- business.png
- insanity.jpg
- ondesoft.jpg
- ultimate.jpeg
- apps.html
- directions.html
- index.html

- This web site has 3 pages.
- Each page has:
 - Head Section
 - Body Section
- Each Body Section has
 - Header
 - Footer



```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Bundle APP Store</title>
    <link rel="stylesheet" href=".css/home.css">
  </head>
  <body>
    
    <div class="container">
      <div id="header">...</div>
      <div id="navigation">...</div>
      <div id="maincontent">...</div>
      <div id="footer">...</div>
    </div>
  </body>
</html>
```

- 3 Identical Head Section
- 3 Identical Header's
- 3 Identical Footer's
- repeated sections in each file (<head> <body> etc...)

- Its got its own Wikipedia Page!

Don't repeat yourself

From Wikipedia, the free encyclopedia

In software engineering, **don't repeat yourself (DRY)** is a principle of software development, aimed at reducing repetition of information of all kinds, especially useful in multi-tier architectures. The DRY principle is stated as “Every piece of knowledge must have a single, unambiguous, authoritative representation within a system.” The principle has been formulated by [Andy Hunt](#) and [Dave Thomas](#) in their book *The Pragmatic Programmer*, coauthored with [Dennis Ritchie](#) and [Francisco Granados](#). They apply it quite broadly to include “[database schemas](#), [test plans](#), [the build system](#), even [documentation](#).”^[1] When the DRY principle is applied successfully, a modification of any single element of a system does not require a change in other logically unrelated elements. Additionally, elements that are logically related all change predictably and uniformly, and are thus kept in sync. Besides using [methods](#) and [subroutines](#) in their code, Thomas and Hunt rely on [code generators](#), automatic build systems, and scripting languages to observe the DRY principle across layers.

Contents [hide]

- [1 DRY vs WET solutions](#)
- [2 See also](#)
- [3 References](#)
- [4 External links](#)

DRY vs WET solutions [edit]

Violations of DRY are typically referred to as **WET** solutions, which is commonly taken to stand for either “write everything twice” or “we enjoy typing”.^{[2][3]}

[https://en.wikipedia.org/wiki/Don%27t repeat yourself](https://en.wikipedia.org/wiki/Don%27t_repeat_yourself)

Dry vs WET

Dont Repeat Yourself
VS
Write Everything Twice
OR
We Enjoy Typing

```
<div id="header">
  <h1>Welcome to the App Bundle Store</h1>
</div>
<div id="header">
  <h1>Welcome to the App Bundle Store</h1>
<>
  <div id="header">
    <h1>Welcome to the App Bundle Store</h1>
  </div>
```

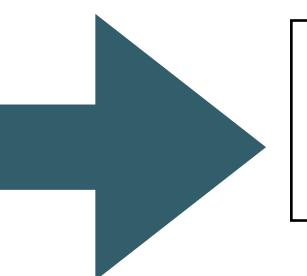
```
<div id="footer">
  <p>
    Contact us at : bundle@store.com or visit us: <a href="directions.html"> directions </a>
  </p>
</div>
<div id="footer">
  <p>
    Contact us at : bundle@store.com, or visit us: <a href="directions.html"> directions </a>
  </p>
</div>
<div id="footer">
  <p>
    Contact us at : bundle@store.com, or visit us: <a href="directions.html"> directions </a>
  </p>
</div>
```

Dry: Single Header + Footer Template

Incorporate the SAME single header/footer in all pages

```
<div id="header">
  <h1>Welcome to the App Bundle Store</h1>
</div>

<div id="header">
  <h1>Welcome to the App Bundle Store</h1>
  <div id="header">
    <h1>Welcome to the App Bundle Store</h1>
  </div>
```



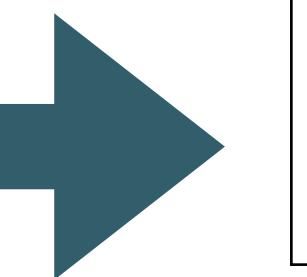
```
<div id="header">
  <h1>Welcome to the App Bundle Store</h1>
</div>
```

Any updates made once to single header/footer

```
<div id="footer">
  <p>
    Contact us at : bundle@store.com or visit us: <a href="directions.html"> directions </a>
  </p>
</div>

<div id="footer">
  <p>
    Contact us at : bundle@store.com, or visit us: <a href="directions.html"> directions </a>
  </p>
</div>

<div id="footer">
  <p>
    Contact us at : bundle@store.com, or visit us: <a href="directions.html"> directions </a>
  </p>
</div>
```



```
<div id="footer">
  <p>
    Contact us at : bundle@store.com, or visit us: <a href="directions.html"> directions </a>
  </p>
</div>
```

Web Template System

“A web template system uses a template processor to combine web templates to form finished web pages, possibly using some data source to customize the pages or present a large amount of content on similar-looking pages. It is a web publishing tool present in content management systems, web application frameworks, and HTML editors.”

Harp & Surge 



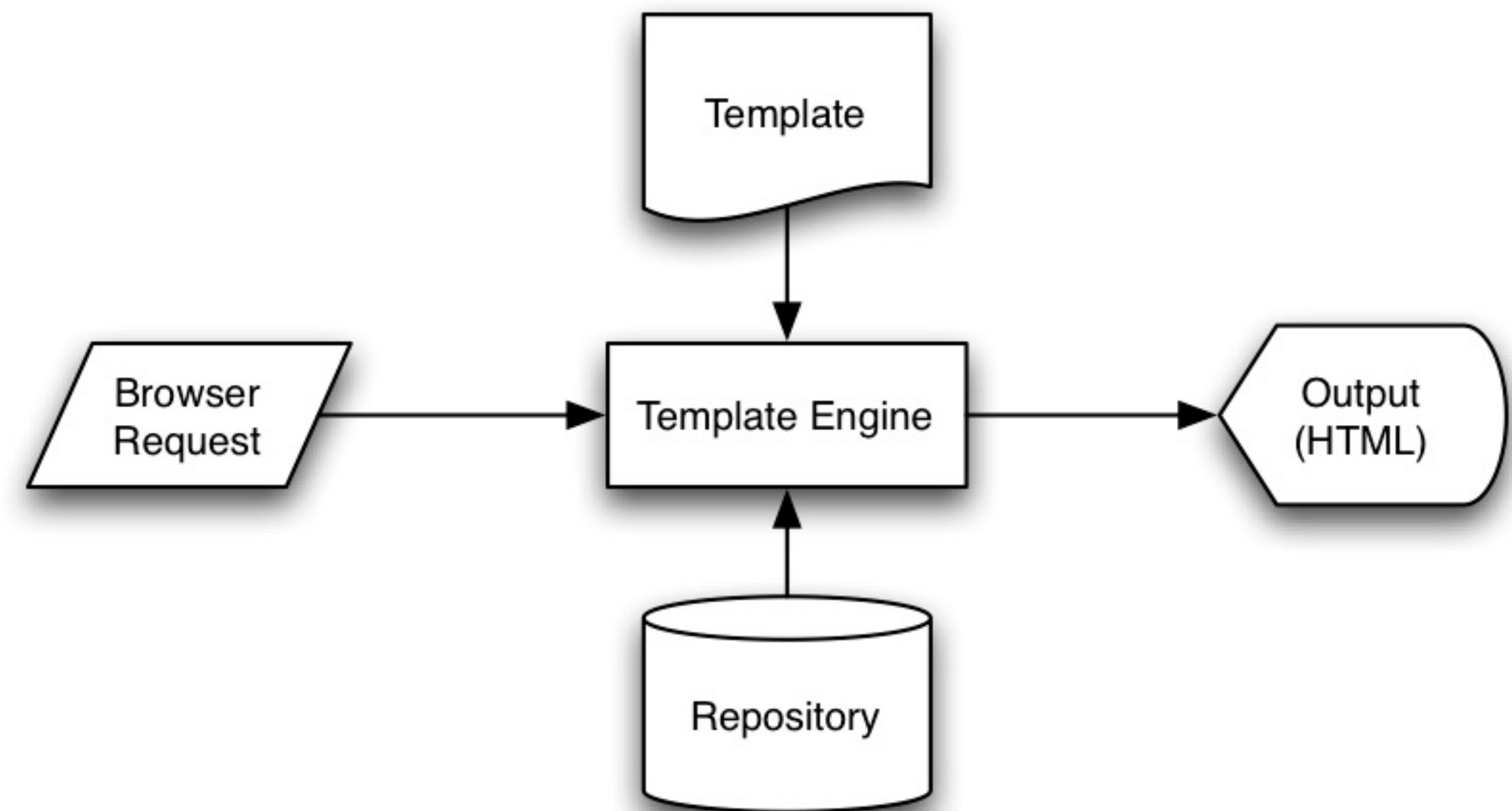
command prompt · node · harp · surge · server · compile

Lab-5a Harp & Surge 



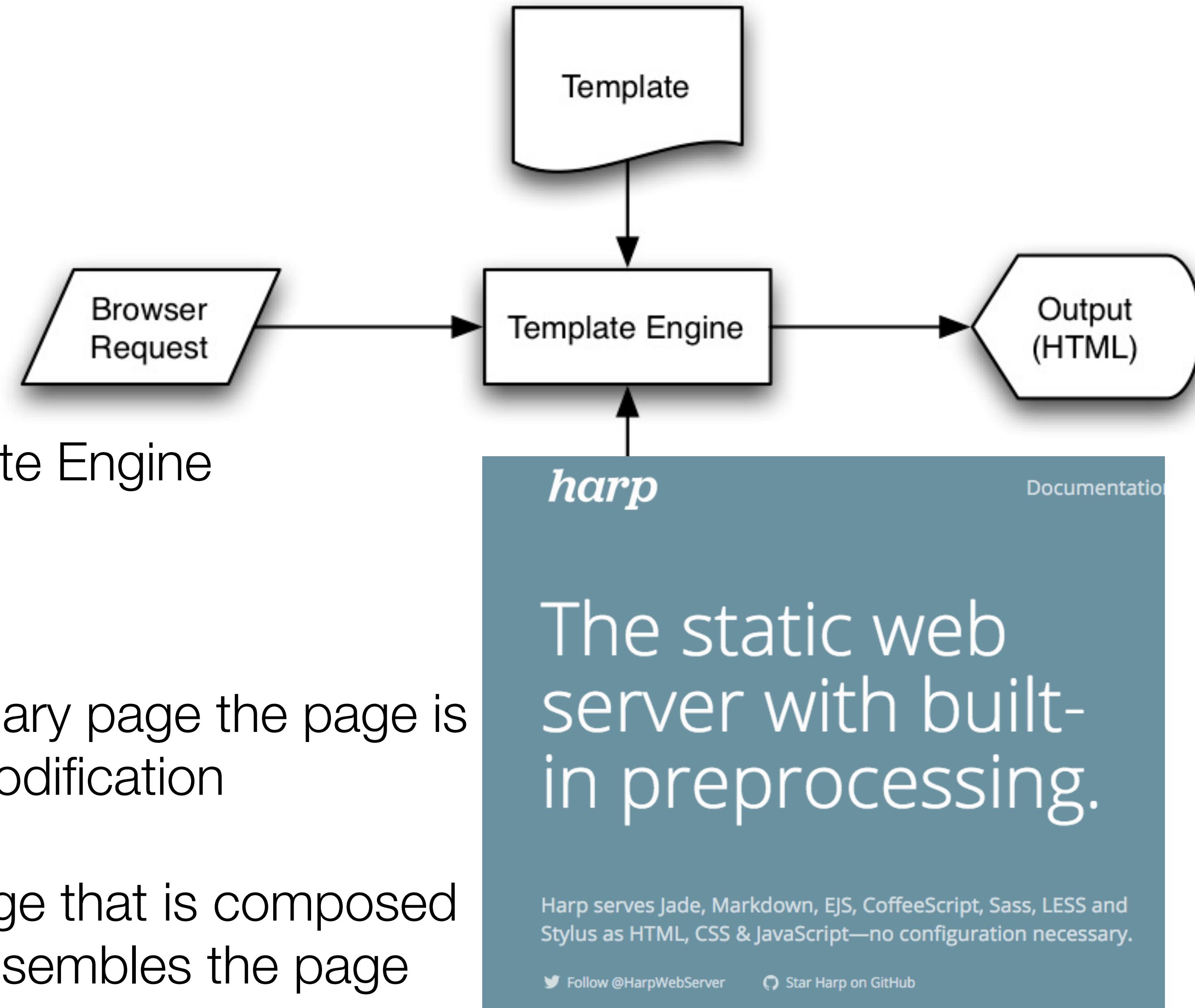
Install software tools to serve a web site locally and also to deploy the web site to a public web server.

https://en.wikipedia.org/wiki/Web_template_system



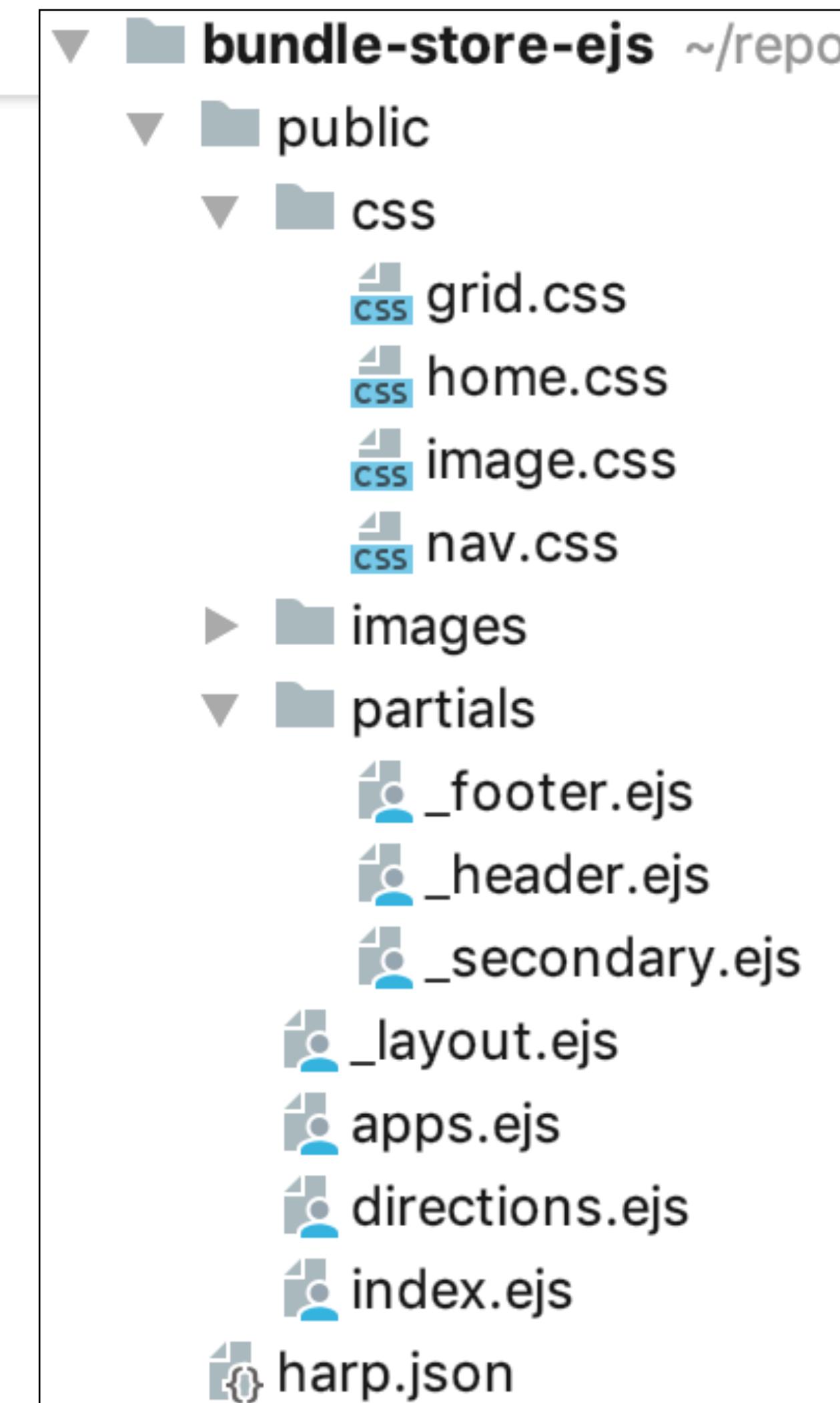
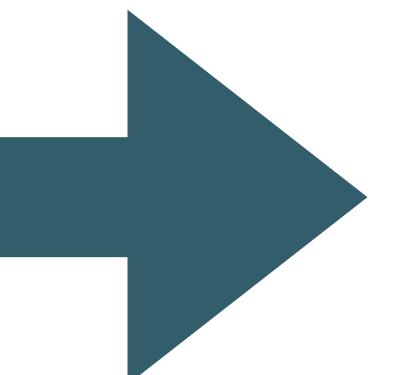
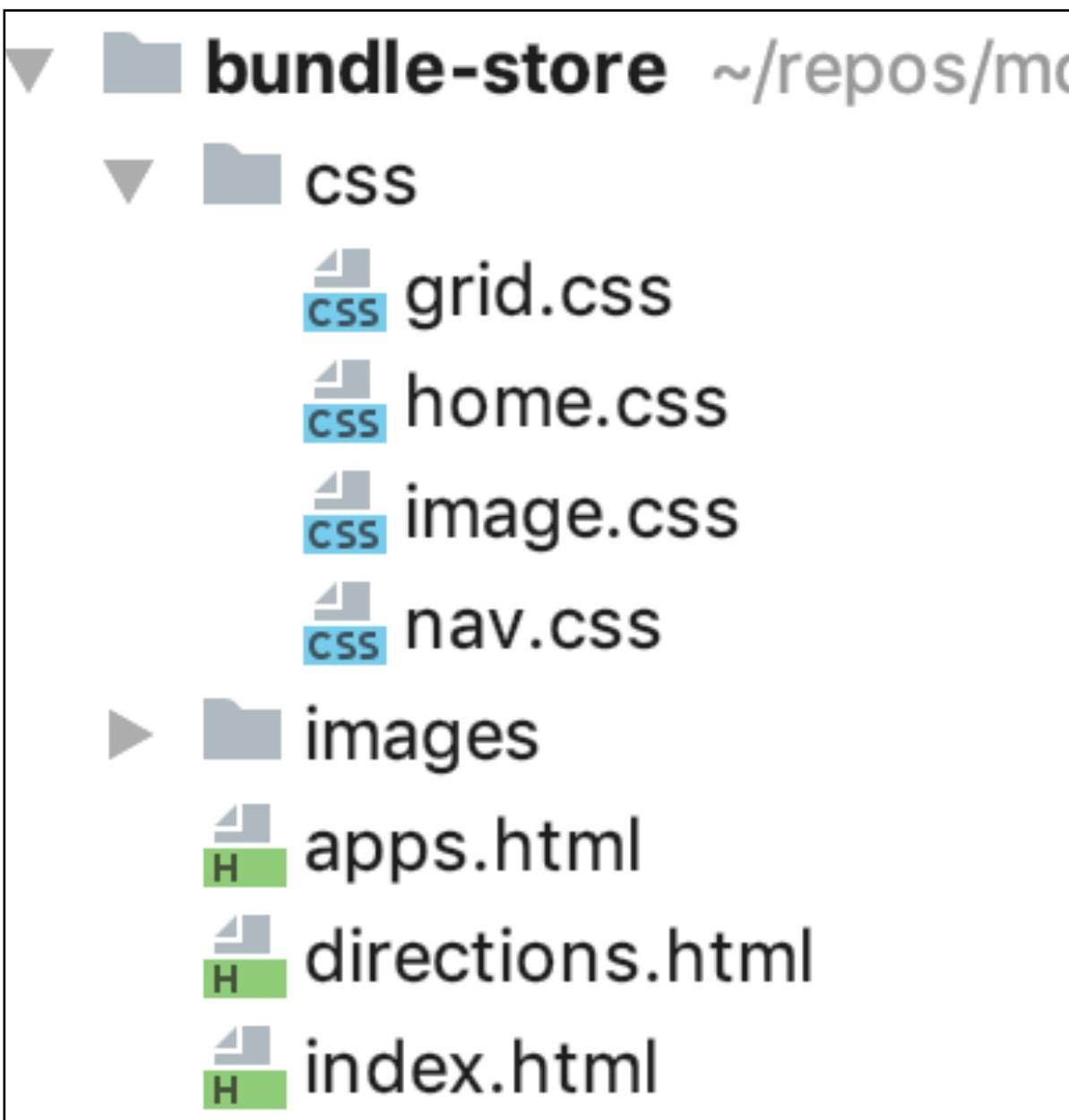
Harp.js

- Harp.js is our Template Engine
- It ‘serves’ the site
- If *Request* is for ordinary page the page is ‘rendered’ without modification
- If *Request* is for a page that is composed of templates, harp assembles the page and renders the complete page to the browser

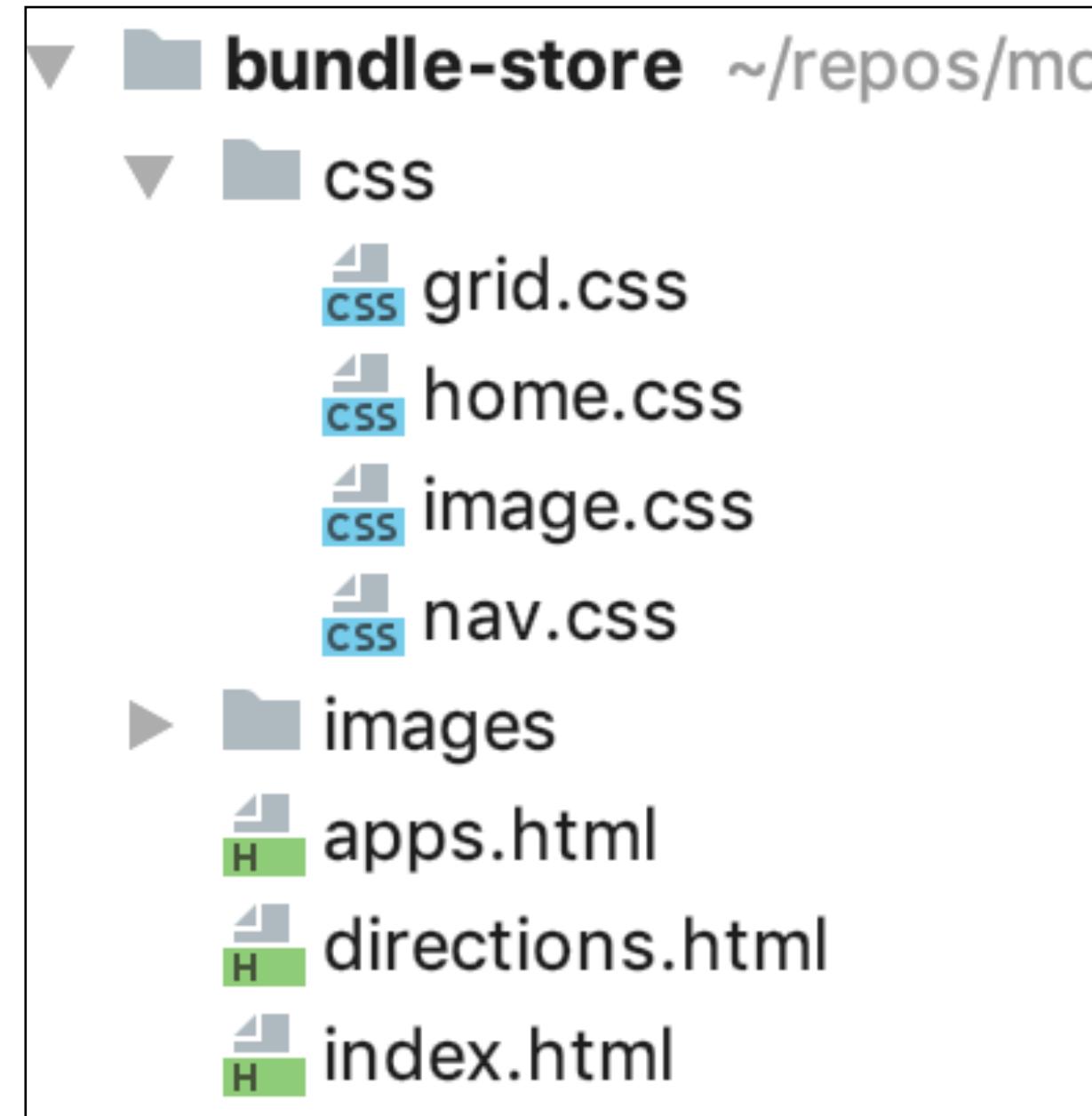


Objectives

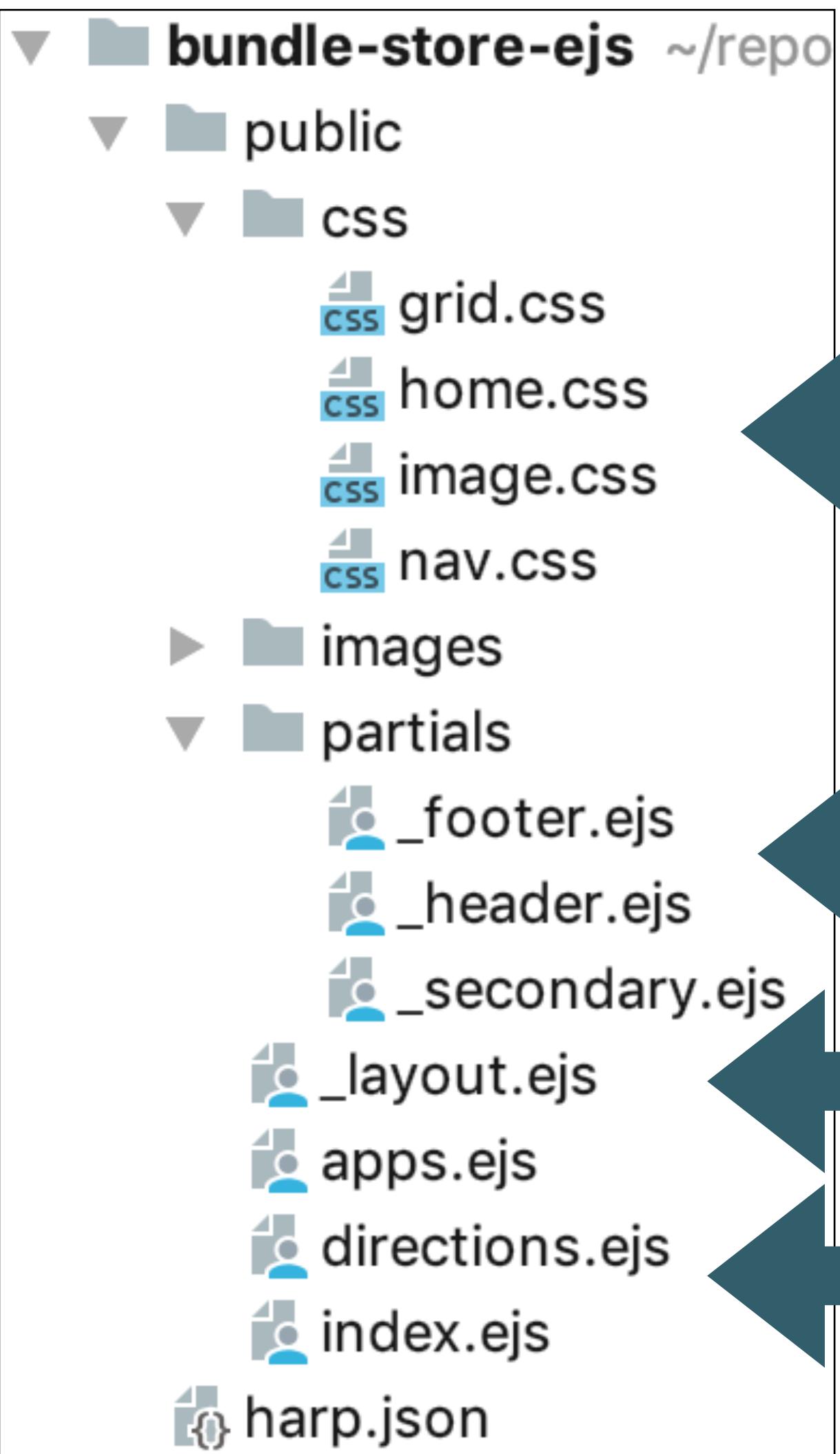
Refactor the bundle-store site to use EJS templates



WET Version



DRY Version



Overall - more files,
but less content

No change to CSS

Reusable templates
(partials) included in
various pages

Reusable Layout

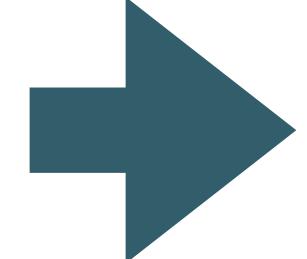
Reworked pages using
layout + templates

Change Folder Structure

```
{  
  "globals":  
  {  
  }  
}
```

harp.json

```
└── lab-05b  
    └── bundle-store  
        ├── apps.html  
        ├── css  
        │   ├── grid.css  
        │   ├── home.css  
        │   ├── image.css  
        │   └── nav.css  
        ├── directions.html  
        ├── images  
        │   ├── background.gif  
        │   ├── banner.png  
        │   ├── business.png  
        │   ├── insanity.jpg  
        │   ├── ondesoft.jpg  
        │   └── ultimate.jpeg  
        └── index.html
```



```
└── lab-05b  
    └── bundle-store-ejs  
        ├── harp.json  
        └── public  
            ├── apps.html  
            ├── css  
            │   ├── grid.css  
            │   ├── home.css  
            │   ├── image.css  
            │   └── nav.css  
            ├── directions.html  
            ├── images  
            │   ├── background.gif  
            │   ├── banner.png  
            │   ├── business.png  
            │   ├── insanity.jpg  
            │   ├── ondesoft.jpg  
            │   └── ultimate.jpeg  
            └── index.html
```

- Restructure folders

- Still WET (non templated) version of site

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Business Bundle

With the new €5 Insanity Deals from

FX PHOTO STUDIO PRO
Get a Top-Rated MAC App everyday for 5 Bucks
Award winning photo app with 172 high quality effects
✓ One of the best variety of photo effects
✓ Mac OS X native
✓ Mac OS X Color space tools
✓ Possibility to apply multiple layers to one image
€5 **\$12.99**

Bundlehunt you receive every day a highly reduced app for €5 only with savings up to 75%. Not a real bundle but, as there are multiple apps for only €5 each, one new per day, for the days to come.

Start Server

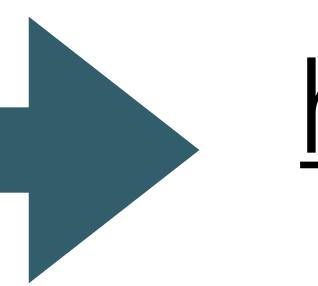
```
C:\dev\web-development\lab0-5b>harp server
-----
Harp v0.29.0 - Chloï Inc. 2012-2015
Your server is listening at http://localhost:9000/
Press Ctrl+C to stop the server
---
```

Server must be started:
“harp server”

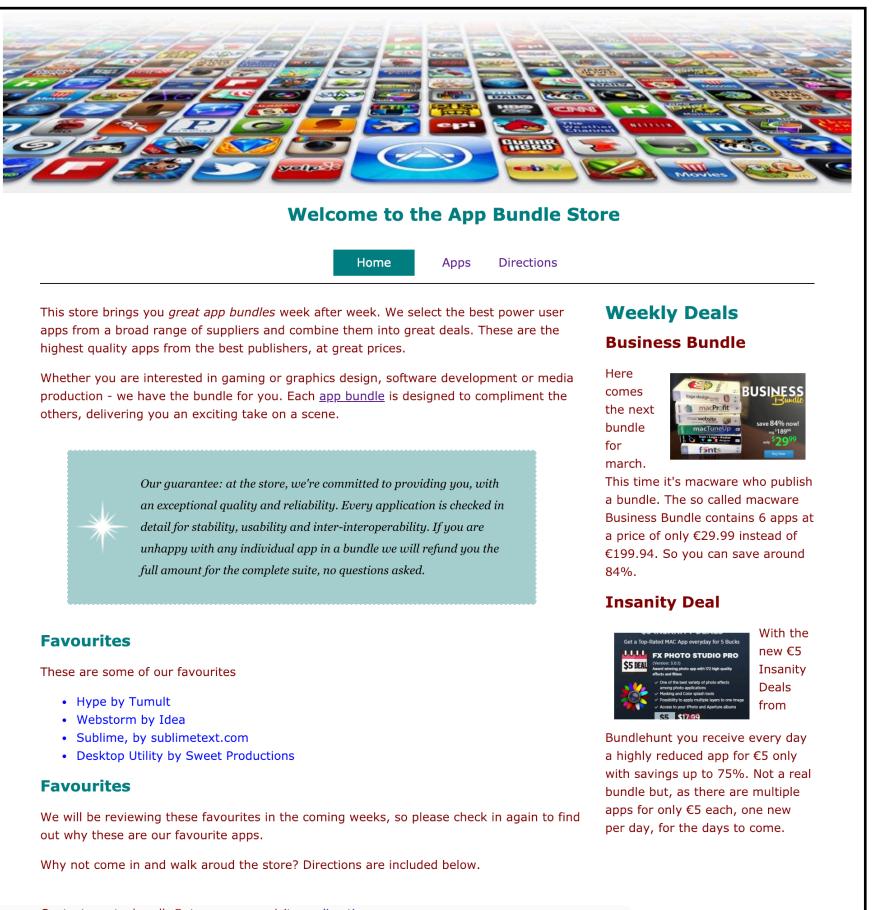
```
-----
Harp v0.29.0 - Chloï Inc. 2012-2015
Your server is listening at http://localhost:9000/
Press Ctrl+C to stop the server
-----
^C
```

Server can also be stopped:
Ctrl-C

Site now available here
(when server is started)



<http://localhost:9000/>



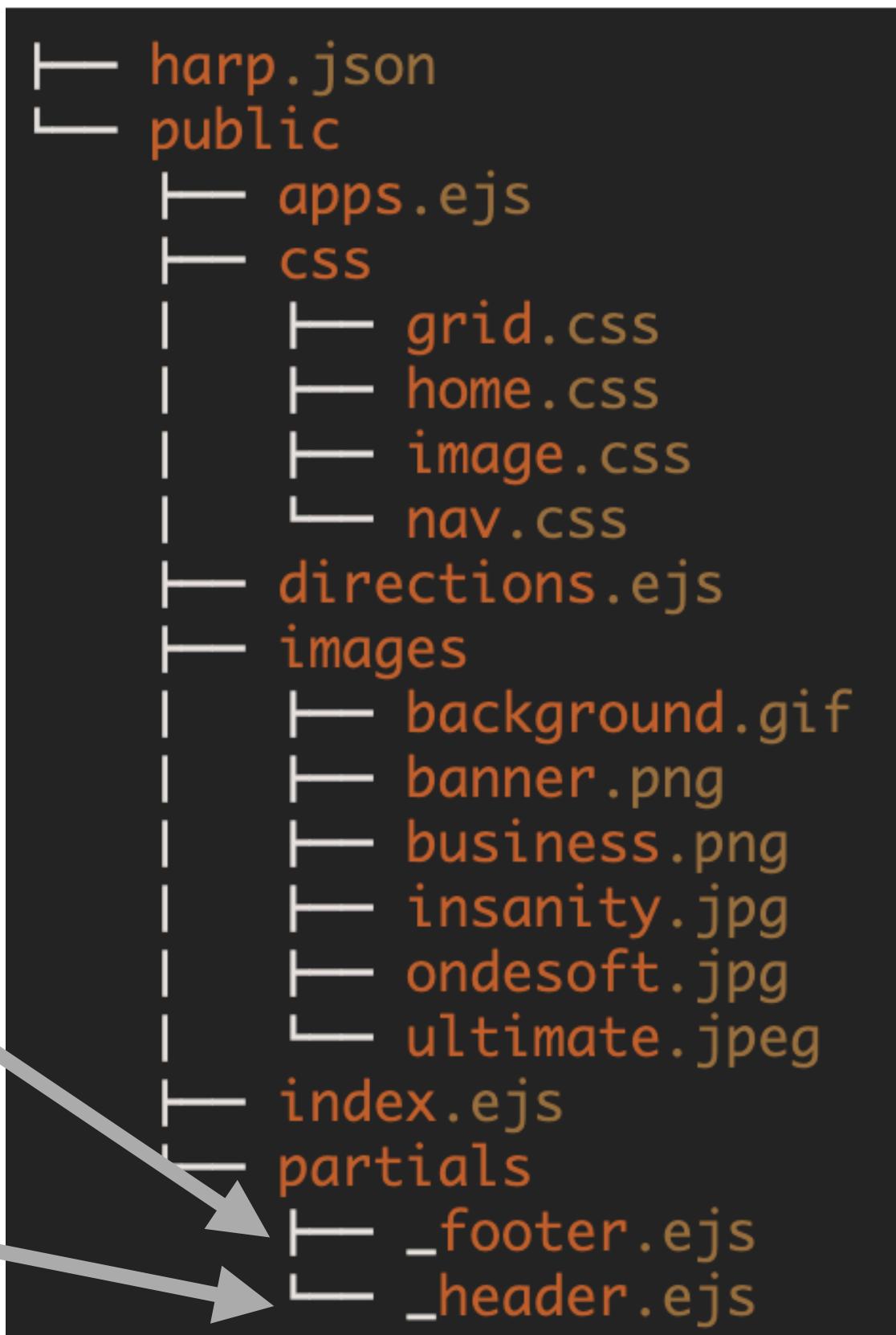
Create header/footer partials

_header.ejs

```
<div id="footer">
  <p> Contact us at : bundle@store.com, or visit us: <a href="directions.html"> directions </a></p>
</div>
```

_footer.ejs

```
<div id="header">
  <h1>Welcome to the App Bundle Store</h1>
</div>
```



- New folder in project called ‘partials’
- ... containing reusable templates ‘_header.ejs’ & ‘_footer.ejs’
- These are exactly the same content as in all our other pages

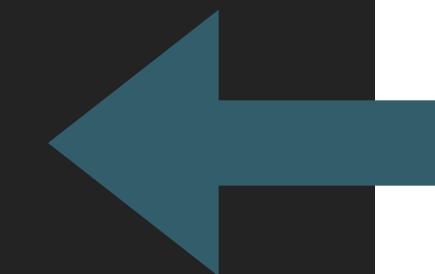
Include partials in pages

- Replace the <header> and <footer> elements with :

```
...  
    <%- include('./partials/_header.ejs'); %>  
...  
    <%- include('./partials/_footer.ejs'); %>  
...
```

- These will be ‘included’ in the page when it is rendered via harp.

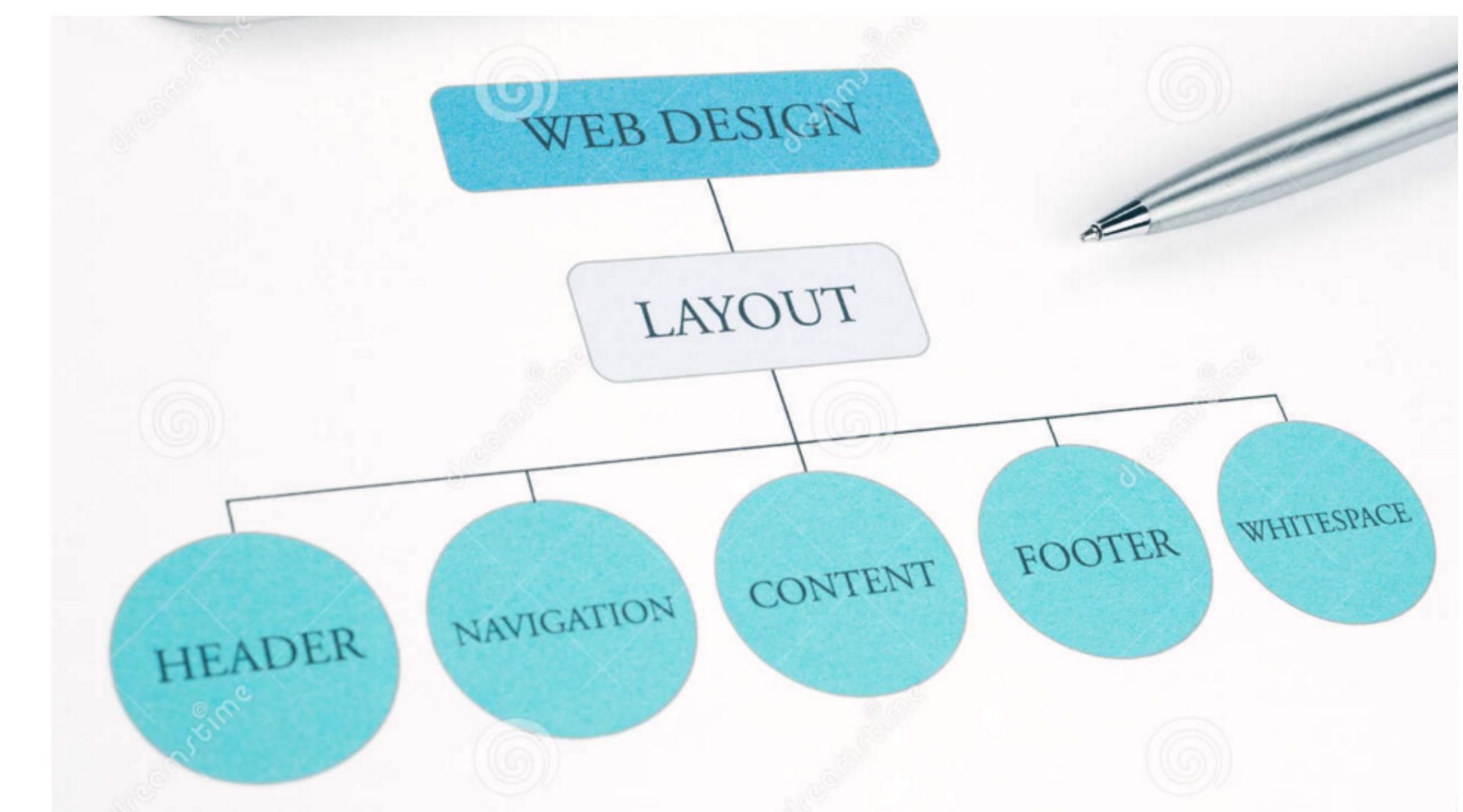
```
  
<div class="container">  
    <%- include('./partials/_header.ejs'); %>  
    <div id="navigation">  
        <ul id="menu">  
            <li><a href="index.html">Home</a></li>  
            <li><a href="apps.html">Apps</a></li>
```



Include statement in
home.html

Include header/footer in all pages

Layouts



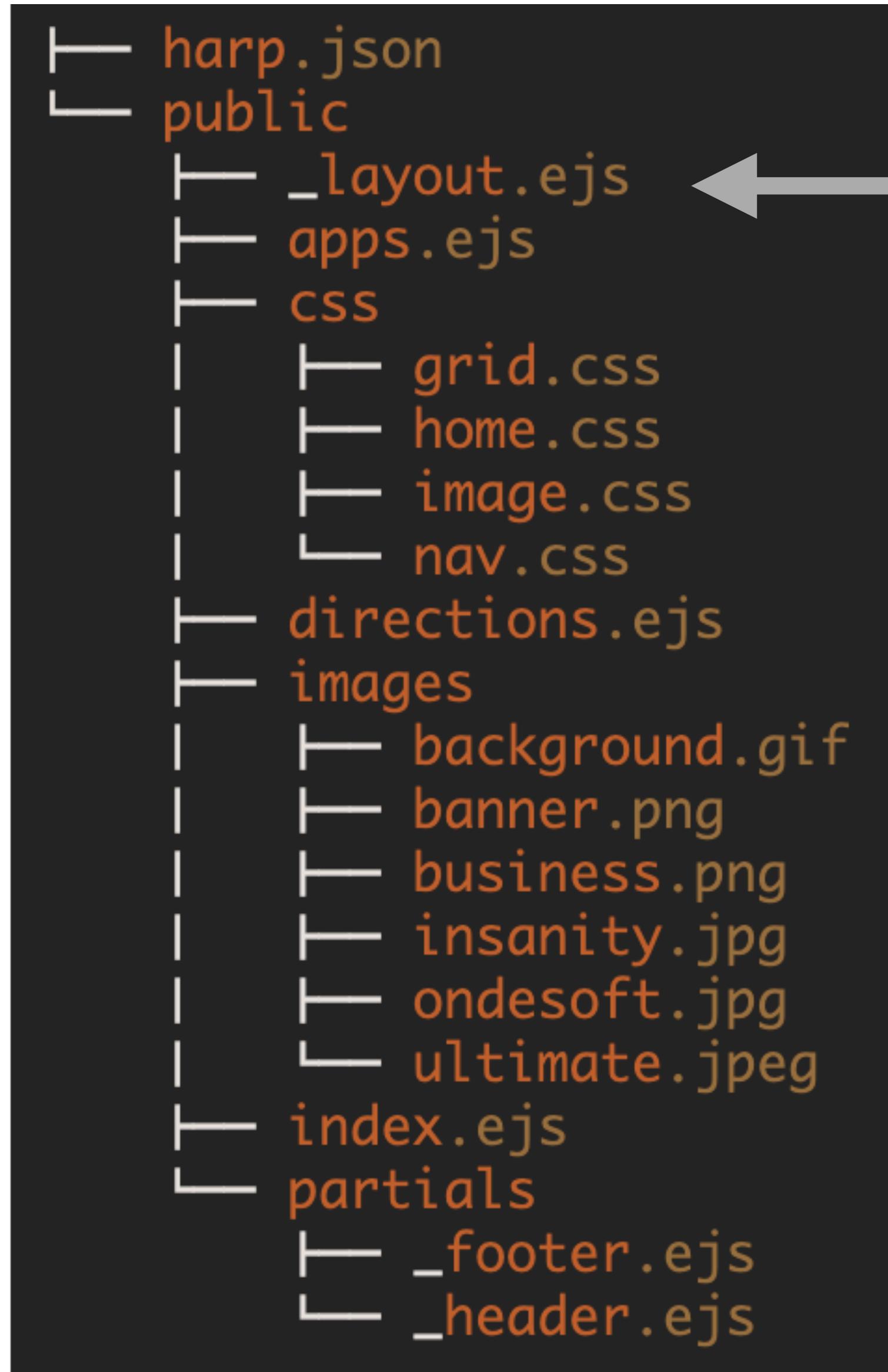
- Layouts are another powerful mechanisms for adopting a DRY approach
- With Layouts, we can define the structure of the overall page...
- ... and each page that uses the layout substituting into a specific part of the page

layout.ejs

layout.ejs

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Bundle APP Store</title>
    <link rel="stylesheet" href="./css/home.css">
  </head>
  <body>
    
    <div class="container">
      <%- yield %>
    </div>
  </body>
</html>
```

- A layout is always called ‘_layout.ejs’
- It **can** contain standard html + partial includes if necessary
- It **must** contain a **<% yield %>** statement
- This yield is replaced by the contents of another template...



- If a folder contains a file called '_layout.ejs':
 - Each page is assumed to be based on this layout
 - The template engine will build each page from the _layout + the individual page concerned

Remove head/body from all pages

- For the index page - its contents are inserted into the layout, replacing the ‘yield’ statement.
- ‘index.ejs’ is now a page template without head, body or other elements..
- It just contains just content to complete the layout.

```
<%- include('../partials/_header.ejs'); %>
<div id="navigation">
  <ul id="menu">
    <li class="active"><a href="index.html">Home</a></li>
    <li><a href="apps.html">Apps</a></li>
    <li><a href="directions.html">Directions</a></li>
  </ul>
</div>
<div id="maincontent">
  <div id="primary">
    <p>
      This store brings you great app bundles week after week. We select the best power user apps from a broad range of suppliers and combine them into great deals. These are the highest quality apps from the best publishers, at great prices. </p>
    <p>
      Whether you are interested in gaming or graphics design, software development or media production - we have the bundle for you. Each <a href="apps.html">app bundle</a> is designed to compliment the others, delivering you an exciting take on a scene. </p>
    <p class="guarantee">
      Our guarantee: at the store, we're committed to providing you, with an exceptional quality and reliability. Every application is checked in detail for stability, usability and inter-operability. If you are unhappy with any individual app in a bundle we will refund you the full amount for the complete suite, no questions asked. </p>
    <h2>Favourites</h2>
    <p> These are some of our favourites </p>
    <ul class="highlight">
      <li>Hype by Tumult</li>
      <li>Webstorm by Idea</li>
      <li>Sublime, by sublimetext.com</li>
      <li>Desktop Utility by Sweet Productions</li>
    </ul>
    <h2>Favourites</h2>
    <p> We will be reviewing these favourites in the coming weeks, so please check in again to find out why these are our favourite apps.</p>
    <p> Why not come in and walk around the store? Directions are included below. </p>
  </div>
  <div id="secondary">
    <h1>Weekly Deals</h1>
    <h2 class="special">Business Bundle</h2>
    <p>
       Here comes the next bundle for march. This time it's macware who publish a bundle. The so called macware Business Bundle contains 6 apps at a price of only €29.99 instead of €199.94. So you can save around 84%. </p>
    <h2 class="special">Insanity Deal</h2>
    <p>
       With the new €5 Insanity Deals from Bundlehunt you receive every day a highly reduced app for €5 only with savings up to 75%. Not a real bundle but, as there are multiple apps for only €5 each, one new per day, for the days to come. </p>
    </div>
  </div>
<%- include('../partials/_footer.ejs'); %>
```

```

<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Bundle APP Store</title>
    <link rel="stylesheet" href=".css/home.css">
  </head>
  <body>
    
      <%- yield %>
    </div>
  </body>
</html>

```



harp template engine then
builds complete page

```

<%- include('../partials/_header.ejs') %>
<div id="navigation">
  <ul id="menu">
    <li class="active"><a href="index.html">Home</a></li>
    <li><a href="apps.html">Apps</a></li>
    <li><a href="directions.html">Directions</a></li>
  </ul>
</div>
<div id="maincontent">
  <div id="primary">
    <p> This store brings you great app bundles week after week. We select the best power user apps from a broad range of suppliers and combine them into great deals. These are the highest quality apps from the best publishers, at great prices. </p>
    <p> Whether you are interested in gaming or graphics design, software development or media production - we have the bundle for you. Each <a href="apps.html">app bundle</a> is designed to compliment the others, delivering you an exciting take on a scene. </p>
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    <p> These are some of our favourites </p>
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      <li>Sublime, by sublimetext.com</li>
      <li>Desktop Utility by Sweet Productions</li>
    </ul>
    <h2>Favourites</h2>
    <p> We will be reviewing these favourites in the coming weeks, so please check in again to find out why these are our favourite apps.</p>
    <p> Why not come in and walk around the store? Directions are included below. </p>
  </div>
  <div id="secondary">
    <h1>Weekly Deals</h1>
    <h2 class="special">Business Bundle</h2>
    <p>  Here comes the next bundle for march. This time it's macware who publish a bundle. The so called macware Business Bundle contains 6 apps at a price of only €29.99 instead of €199.94. So you can save around 84%. </p>
    <h2 class="special">Insanity Deal</h2>
    <p>  With the new €5 Insanity Deals from Bundlehunt you receive every day a highly reduced app for €5 only with savings up to 75%. Not a real bundle but, as there are multiple apps for only €5 each, one new per day, for the days to come. </p>
  </div>
</div>
<%- include('../partials/_footer.ejs') %>

```

index.html

```
<div id="navigation">
  <ul id="menu" ...>
</div>
<div id="maincontent">
  <div id="primary" ...>
  <div id="secondary" ...>
</div>
```

apps.html

```
<div id="navigation">
  <ul id="menu" ...>
</div>
<div id="maincontent">
  <div id="primary" ...>
</div>
```

directions.html

```
<div id="navigation">
  <ul id="menu" ...>
</div>
<div id="maincontent">
  <div id="primary" ...>
</div>
```

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Bundle APP Store</title>
    <link rel="stylesheet" href=".css/home.css" />
  </head>
  <body>
    
    <div class="container">
      <% include('./partials/_header.ejs') %>
      <% yield %>
      <% include('./partials/_footer.ejs') %>
    </div>
  </body>
</html>
```



_header.html

```
<div id="header">
  <h1>Welcome to the App Bundle Store</h1>
</div>
```

_footer.html

```
<div id="footer">
  <p> Contact us at : bundle@store.co</p>
</div>
```

Template Engine in action

<%= EJS %>

Effective JavaScript templating.

[GET STARTED](#)

What is EJS?

"E" is for "effective." EJS is a simple templating language that lets you generate HTML markup with plain JavaScript.

No religiousness about how to organize things. No reinvention of iteration and control-flow. It's just plain
JavaScript.



Use plain JavaScript

We love JavaScript. It's a totally friendly language. All templating languages grow to be Turing-complete. Just cut out the middle-man, and use JS!



Fast development time

Don't waste time and attention figuring out arcane new syntax because 'elegance' — or how to preprocess your data so it will actually render right.



Simple syntax

JavaScript code in simple, straightforward scriptlet tags. Just write JavaScript that emits the HTML you want, and get your shit done.



Speedy execution

We all know how fast V8 and the other JavaScript runtimes have gotten. EJS caches the intermediate JS functions for fast execution.



Easy debugging

It's easy to debug EJS errors: your errors are plain JavaScript exceptions, with template line-numbers included.



Active development

EJS has a large community of active users, and the library is under active development. We're happy to answer your questions or give you help.

- Harp includes EJS and Jade template engines
- As long as your page is being ‘served’ by harp, Ejs & Jade directives will be implemented

harp

Documentation Blog FAQ Community GitHub

Search the docs, try “EJS” or “Stylus”

Overview
Quick Start

Environment
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Development
The Rules
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Layouts

A Layout is a common template that includes all content except for one main content area. You can think of a Layout as the inverse of a `partial`.

- [Creating Layouts with EJS](#)
- [Creating Layouts with Jade](#)
- [Multiple Layouts](#)
- [Explicit Layouts](#)
- [No Layout](#)

Why?

Often sites and apps will have common headers and footers and the only area that needs to change is the body. This is an ideal use case for a layout.

Usage

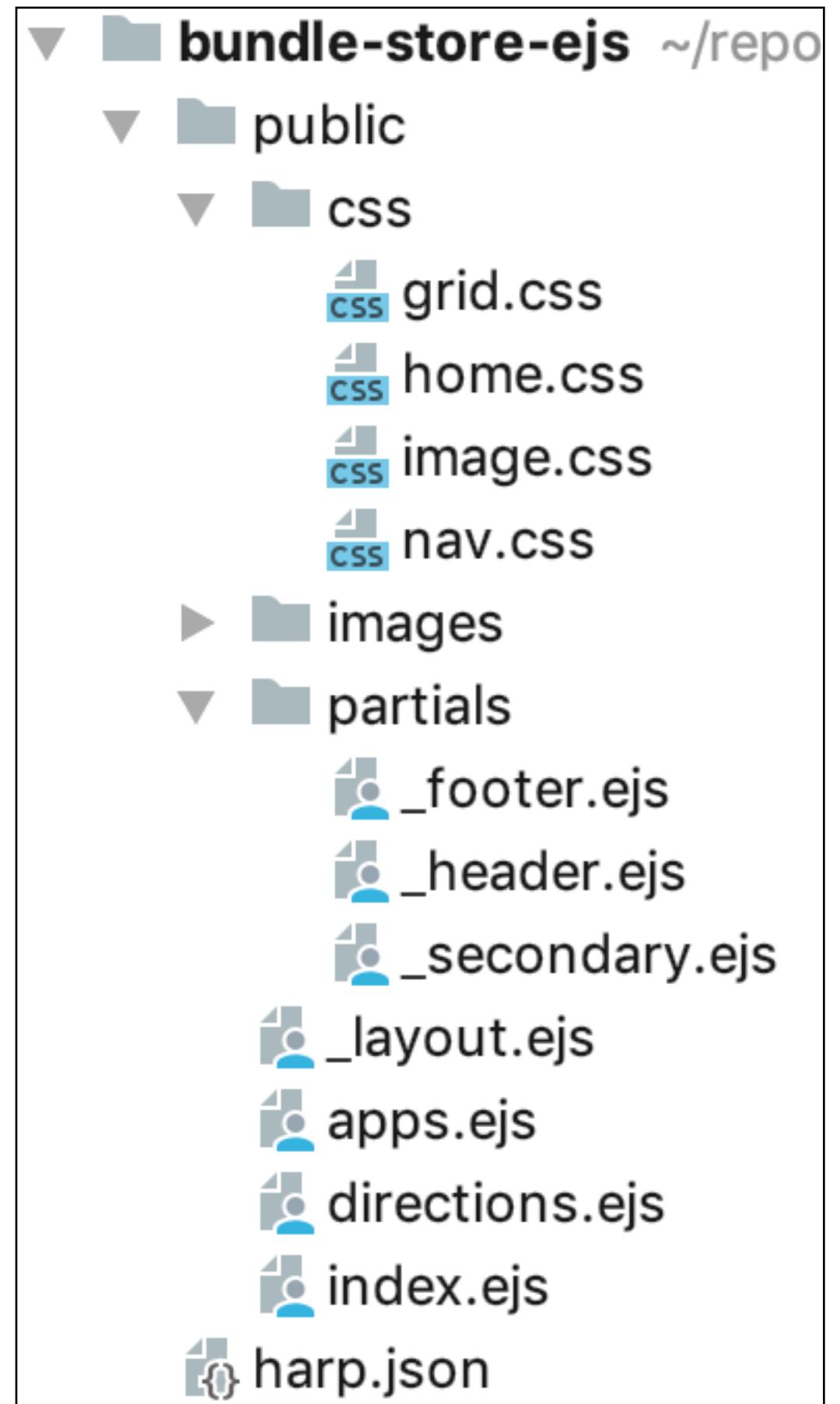
A Layout requires a layout file, written in EJS or Jade, and a `yield` property to tell Harp where to insert the content.

Example using EJS Templating

Given a really simple app / project with this structure:

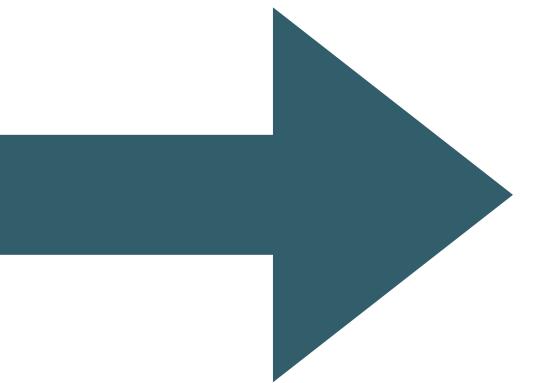
```
myapp.harp.io/
  |- _layout.ejs
  +- index.ejs
```

_layout.ejs

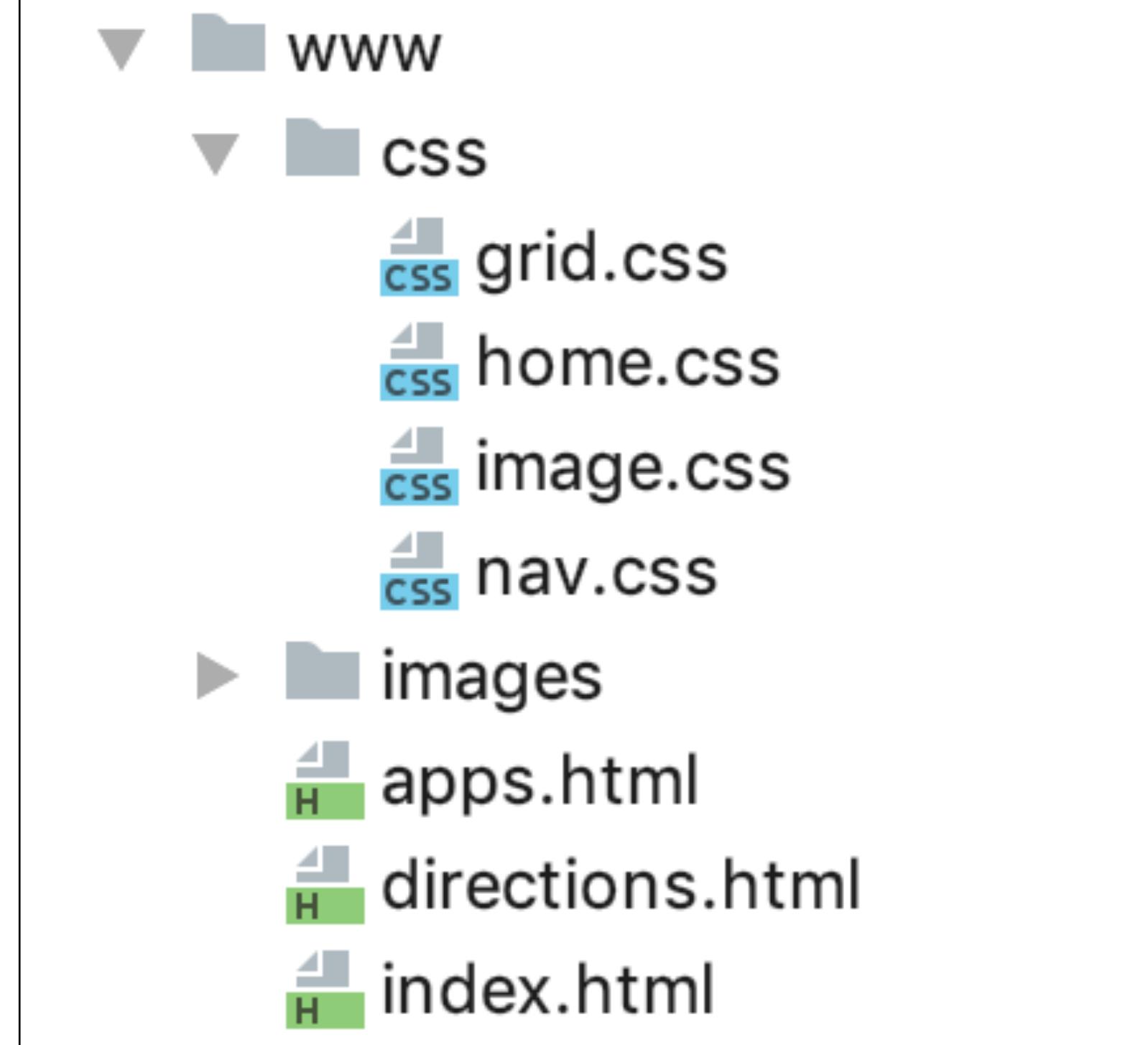


harp compile

- the harp 'compile' command will generate a complete copy of your site - with all directives removed and full pages replacing all fragments.



Compiling Site



- The compiled version removes all ejs files, and generates complete site