Final Exam: Interactive Content 2

Q1: Write 5 differences between React.js, Angular.js & Vue.js?

Answer. ReactJS

ReactJS is fathered by Facebook and is based on FLUX architecture. The advantage FLUX architecture renders to ReactJS for building client-side web applications makes it easy to be used immediately by the developers as has a lot of composed components to use from. As ReactJS has powered some very reputed websites like PayPal, Uber, and Netflix, it is considered to a strong competitor to the other two despite having comparatively less code reusability and limited documentation.

Virtual DOM and The Node tree functionality of ReactJS is what fuels its popularity. The inherent strength of ReactJS being a flexible framework lets it interact with different libraries with an unprecedented ease. A rich library and tool support of Blueprint, React-Bootstrap, React native web and more make it a versatile framework to suit multiple web solution development.

AngularJS

Another masterpiece from the Google family, AngularJS is an MVC architecture based framework. As a rigid architecture, AngularJS is devoid of flexibility but a plethora of other advantages it brings along make it a fine bargain. With a brilliant CLI, developers love to code in the AngularJS framework and that is what leads to a thriving community of AngularJS developers that offers tremendous documented support which is quite precise.

As a modular framework, it offers a huge amount of code reusability leading to the quick development of solutions. It is a highly intuitive framework that has a comprehensive nature making the code comparatively shorter than the other two frameworks. Its dependency injection feature keeps the code clean, readable and loosely coupled to find the bugs. Offering form validation and Http Client feature lead to include testability features, typed request and response objects and more. Undoubtedly AngularJS is being preferred by global leaders like Google, Forbes, and weather.com.

Vue.JS

The new baby in the town is just 4 years old and is a framework that is quite closers to AngularJS but is lighter than its parent framework. Supported by Community, Vue.JS is a FLUX architecture based framework that offers a good level of architectural flexibility. Vue.JS offers a great CLI that allows you to set up the project using webpack and browserify template.

Even when it is a comparatively newer framework, Vue.JS has a sound documentation support. Its code reusability surpasses both AngularJS and ReactJS as it supports both CSS and HTML code reusability.

A simple to integrate framework that offers separation of templates, CSS code and JavaScript Code helps build light solutions. If you ever experienced website and Apps of Expedia, Nintendo, and Alibaba, their excellence is rendered by Vue.JS

Q2: Write 5 similarities between React.js, Angular.js & Vue.js?

Answer.

React
It is possible with React Native.
It is possible to develop small apps.
UI rendering is on the server/client-side.
It is free as it is open-source.
It is backed by a large community.
Many big firms have adopted it, including Dropbox, Netflix, New York Times, and more.

Angular
It is possible with NativeScript.
It is possible to develop small apps.
UI rendering is on the client-side and can be changed to the server-side with Angular Universal.
It is free as it is open-source.
It is backed by a large community. pop
Many big firms have adopted it, including Paypal, Upwork, and more.

Vue
Popular in open source community.
Approx 80kb size.
Extremely suitable for lightweight applications.
Neither stubborn nor flexible.
It offers a lot developer like the vue server side render.

Q3: What is SCSS?

Answer. The newer syntax, "**SCSS**" (Sassy **CSS**), uses block formatting like that of **CSS**. It uses braces to denote code blocks and semicolons to separate rules

within a block. The indented syntax and **SCSS** files are traditionally given the extensions . sass and . **scss**, respectively.

Q4: Create a responsive table using bootstrap? Write the code for it.

Answer.
```
<table class="table">
 <thead>
  <tr>
   <th scope="col">#</th>
   <th scope="col">First</th>
   <th scope="col">Last</th>
   <th scope="col">Handle</th>
  </tr>
 </thead>
 <tbody>
  <tr>
   <th scope="row">1</th>
   <td>Mark</td>
   <td>Otto</td>
   <td>@mdo</td>
  </tr>
  <tr>
   <th scope="row">2</th>
   <td>Jacob</td>
   <td>Thornton</td>
   <td>@fat</td>
  </tr>
  <tr>
   <th scope="row">3</th>
   <td>Larry</td>
   <td>the Bird</td>
   <td>@twitter</td>
  </tr>
 </tbody>
</table
```

Q5: Difference between framework and library?

Answer. The technical difference between a framework and library lies in a term called inversion of control. When you use a library, you are in charge of the application flow. You choose when and where to call the library. When you use a framework, the framework is in charge of the flow.

Q6: Which HTML5 tag is used for adding audio to the webpage?

Answer. The HTML <audio> element is used to embed sound content in documents. It may contain one or more audio sources, represented using the src attribute or the <source> element: the browser will choose the most suitable one. It can also be the destination for streamed media, using a MediaStream.

Q7: Which HTML5 tag is used for adding video to the webpage?

Answer. The Video Embed element. The HTML Video element (<video>) embeds a media player which supports video playback into the document. You can use <video> for audio content as well, but the <audio> element may provide a more appropriate user experience.

Q8: What is HTML5 canvas?

Answer. The HTML <canvas> element is used to draw graphics, on the fly, via JavaScript. The <canvas> element is only a container for graphics. You must use JavaScript to actually draw the graphics. Canvas has several methods for drawing paths, boxes, circles, text, and adding images.

Q9: Mentions 6 animation properties exist in CSS3?

Answer. animation-name

animation-duration

animation-timing-function

animation-delay

animation-iteration-count

animation-direction

animation-fill-mode.

Q10: How to integrate font-awesome buttons in HTML5? Write the code for it.

Answer.

```
<html>
<head>
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
<style>
.btn {
  background-color: DodgerBlue;
  border: none;
  color: white;
  padding: 12px 16px;
  font-size: 16px;
  cursor: pointer;
}
.btn:hover {
  background-color: RoyalBlue;
}
</style>
</head>
<body>
```

```
<h2>Icon Buttons</h2>
<p>Icon buttons:</p>
<button class="btn"><i class="fa fa-home"></i></button>
<button class="btn"><i class="fa fa-bars"></i></button>
<button class="btn"><i class="fa fa-trash"></i></button>
<button class="btn"><i class="fa fa-close"></i></button>
<button class="btn"><i class="fa fa-folder"></i></button>

<p>Icon buttons with text:</p>
<button class="btn"><i class="fa fa-home"></i> Home</button>
<button class="btn"><i class="fa fa-bars"></i> Menu</button>
<button class="btn"><i class="fa fa-trash"></i> Trash</button>
<button class="btn"><i class="fa fa-close"></i> Close</button>
<button class="btn"><i class="fa fa-folder"></i> Folder</button>

</body>
</html>
```