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ASSIGNMENT - 1

QUESTIONS :-

1. Explain how a web site could learn something about your browsing habits outside its site from an HTTP request sent to the site by your browser. Assume that request has only the headers listed in table.

SL NO.	FIELD NAME
1	Host
2	User - Agent
3	Accept
4	Accept - Language
5	Accept - Encoding
6	Accept - charset
7	connection
8	Keep - Alive
9	content - type
10	content - length

2. Some browsers developers support HTML tags which they invented but which are not W3C standards. Using one of these tags often means that your page will appear "broken" when viewed from a competing browser. Would you use one of these tags, or would you conform to W3C standards. Describe which one is best and why.

3. Explore the web content accesibility and mobile web document of your choice. Summarize areas that overlap in accesibility and mobile web design best practices and how web developers can support both accesibility and mobile devices. Include the links of at least two related sites you explored.

4. Choose a website and one of the web design frameworks (Design for usability, conversion-centered Design):

→ Assess the quality of the website based on speific framework that you piked.

→ Determine 3 changes to the website you think will create the largest improvement in the conversion rate.

→ Explain why the reasons you use should be based on the web design framework you piked.

5. Research and discuss HTML5 semantic elements. Find examples of web pages where they are used. What does UX mean (and stand for) and how does it relate to web-site design? Give 3-5 processes of UX and explain each one.

ANSWERS :-

1. When we decide to browse anything on a website there are two things that happen in the HTTP header consisting of HTTP request and the browser collects data from this request and responds accordingly. There two parameters construct the parameters of HTTP transaction.

In the question given the following fields are considered to be in the HTTP request section.

i) HOST: This field is a mandatory field in HTTP request section as it consists of the domain name of server and the port number.

ii) USER-AGENT: This field consists of data related to the user i.e, the browser used, the system information etc.

iii) ACCEPT: It is a field that specifies the acceptability of the media types.

iv) ACCEPT-LANGUAGE: It consists of a list of languages that can be accessed or accepted for response.

v) ACCEPT-ENCODING: It specifies what kind of encoded files can be accessed such as zip, deflate etc.

vi) ACCEPT-CHARSET: It specifies the list of ~~charsets~~ characters sets that are acceptable.

Eg: Accept-Charset: utf-8.

vii) CONNECTION: It controls the current connection i.e, whether to keep it alive or ~~upgrade~~ upgrade.

viii) KEEP-ACTIVE: The keep-active is a connection field used to keep the retrieving web-page to be study i.e, do not upgrade.

ix) CONTENT-TYPE: This field specifies the media type of the body of request field.

x) CONTENT-LENGTH: This field specifies the length of content in octets.

Based on the fields in HTTP request I say the browser can learn out our point of interest in fields through the HOST field, learn about what kind of media we are frequently interested through the Accept and content-type fields, what kind of language we are familiar with and want our data to be through the Accept-language field.

2. The World Wide Web Consortium (W3C) came up with some law and order to the cyber-frontiers in order to organize some standards. this initiative was taken as the websites that were created prior were working fine on a particular browser but failed to serve the users over other platforms. The mission of W3C is to lead the World wide ~~web~~ web to its full potential so that the websites are accessible to all the users over all the various platforms by developing standards, protocols and guide lines.

In my opinion the W3C standards should be opted by all the users to construct a web-design so that it provides comfort to user to use any platform he/she needs, in other words if W3C standards are not followed the user has to shift to the platform in which the websites are accesable rightfully, this will lead eventually into discomfort and dissatisfaction of the user.

The W3C's primary focus is developing the protocols and standards for key aspects of web ranging from HTML and CSS coding to web architecture, ~~XLM~~ XML technology, web devices, web browsing and authoring tools. Till date W3C has generated more than 90 standards which are also called "recommendations". These standards should be applied to all the various platforms so that web works equally for everyone, regardless of their location or technology.

The best approach is to follow W3C standards because the websites that don't follow W3C's protocols will be

i) slow to load.
ii) wont work well with all browsers.
iii) Reduce efficiency of search engines.
iv) Can lower the search rankings and make it harder for people to find the sites.

3. WEB CONTENT ACCESIBILITY:

The web content Accesibility Guidelines (WCAG) are organized by four main principles. that content must be POUR: Perceivable, Operable, Understandable and Robust.

PERCEIVABLE:

i> Information and UI components must be presented to users in any ways thats possible. It can't be invisible to all their senses.

ii> If a person can't read we can provide text-alternatives, media if we cannot read but can understand the concept, speak for a blind person, etc.

OPERABLE:

i> The web contents should be operable via navigation and user interface (UI).

ii> We should provide keyboard accesibility, time to read and respond, navigation, etc.

UNDERSTANDABLE:

i> The users must be able to understand the information and operation of UI.

ii> Text often content should be readable, predictable, etc.

ROBUST:

i> Even if technologies and user agents evolve

the content should remain accesible.

ii) The web contents should be compatible to changes.

MOBILE WEB DOCUMENT ACCESIBILITY:

PERCEIVABLE:

i) As we know mobiles have small screen size so data should be minimized in the web page and zoom/magnifying options should be provides.

ii) The reduced content can ~~be~~ ~~as~~ ~~is~~ should actually be hidden so that if user is interested he/she can view it.

OPERABLE:

i) As mobiles don't have a keyboard a keyboad control should be provided also if required virtual keyboads can be provided to input or enter data into the website.

ii) The buttons for accesibility should be provided where it is easy for user to use not as per the construction of website.

UNDERSTANDABLE:

i) In the mobile devices Orientation should be provided, i.e, content vary according to portrait or landscape mode. Also content consistency must be maintained.

ROBUST:

i) Easy method for data entry should be provided.

ii) Compatibility with all different devices should be provided.

The similarities are the four principles POUR - Perceive, Operable, Understandable, Robust nature of web content on a website between web content accesibility and mobile web document.

4. Website chosen: gitlab.com
Framework chosen: Vue.js

Gitlab is a DevOps platform, delivered as a single application, fundamentally changing the way development, security and ops team collaborate and build software.

Vue.js is an open source model-view-view model front-end javascript framework for building user interfaces and single-page applications.

Gitlabs application offers functionality to automate entire DevOps life cycle, from planning through to creation, build, verification, security testing, development and monitoring. Gitlab is highly scalable and can be hosted on cloud storage.

5. HTML SEMANTIC ELEMENTS.

i) A semantic element clearly describes the meaning to browser and developer.
Some of the semantic elements are

a) <article>
b) <aside>
c) <section>
d) <header>
e) <footer>
f) <nav>
g) <figcaption>
h) <figure>

<article>: This element specifies independent, self-contained content.

Eg:

```
<article>
<h2> SSK.com </h2>
<p> This website belongs to Sourabh Santosh Kamble </p>
</article>
```

<header>: This element contains data or information related to the website. It can be data illustrating websites. information.

Eg:

```
<header>
<h1> ABOUT </h1>
<p> This website is a domain related to
```

all the work and achievements of Sourabh Santosh Kamble.

<footer> : This element defines footer of document or section.

Eg:

```
<footer>
    <p> Owner: Sourabh Santosh Kamble </p>
    <p> <a href="mailto:ssk@gmail.com"> ssk@gmail.com
</a> </p>
```

UX: UX stands for User Experience. It is the interaction and experience users have with a company's product and services. UX consists of user interactions with placing their order on a company's website, their in store experience of picking up their order, and also their satisfaction of food.

UX designers measure and optimize the web-based applications to improve ease of use and create best user experience by exploring many different approaches to solve end-user's problems.

The different processes in UX are

i) Product definition.

ii) Research.

iii) Analysis.

iv> Design
v> Validation

PRODUCT DEFINITION:

The product definition in UX design is to understand the context of what has to be built, before the product ~~is~~ team creates anything.

PRODUCT RESEARCH:

Here we search for references of product, whether the product is already available if yes what kind of updates have to be added to be benifited.

ANALYSIS:

This phase is used to highlight the data collected from research and moving from what customer needs to why customer needs the product.

DESIGN:

In the design phase we create a dummy or model of how the product is expected to be. It can be done through sketching drawing or directly building a UI design.

VALIDATION:

Validation is testing the product reaching the expectation or not.

4. Website considered : ~~craiglist~~ craigslist
Framework considered : Bootstrap 4.

Craiglist is an American classified advertisements website with sections devoted to jobs, housing, items wanted, services etc.

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front end development. It contains CSS and javascript based design templates.

In my opinion the following changes can be made to craigslist

i) Adapting Bootstrap4 styling as the website is ~~a~~ consisting of huge or large amount of data all in the single page.

ii) Using HTML 5 semantics to align and organize the data effectively so that the user feels more comfortable using the website or accessing it.

iii) Adding data related to the website can attract people and increase the use of website by the user in a large scale.

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