A Review on Web Design & Development

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Abstract:
Internet user reaching million worldwide and expecting to increase more over the years is a sign for websites as the crucial medium of information transmission and dissemination. In order to convey this, a web page has to be developed with an attractive UI so that the end user can easily understand the problem. This page is built keeping this in mind. Proper design has a become a critical element needed to engage website and mobile application users. However, little research has been conducted to define the specific elements used in effective website and mobile application design. We attempt to review and consolidate research on effective design and to define a short list of elements frequently used in Development. The design elements mentioned most frequently in the reviewed literature were navigation, graphical representation, organization, content utility, purpose, simplicity, and readability. We discuss how previous studies define and evaluate these seven elements. This reviewed and the resulting short list of design elements may be used to help designers and developer to operationalize best practices for facilitating and predicting user engagement [1].

Keywords: Website design; Components, Development.

INTRODUCTION:

Internet usage becomes increased tremendously and rapidly in the past decade. Web sites have become the most important public communication portal for the most business and the organization. Business-to-consumer interactions mainly occur online, website design is critical in engaging users. Poorly designed websites may frustrate users and result in a high "bounce rate". Website Development is like house building, before house building process, we ask to an architect about plan, building permit, oversee a survey of geological and license from city. All things must have to see in the website development requirement, designing, documentation, appropriate server and programming language etc. [2].

"Web development" typically refers to the most non-design aspects of building net sites: writing markup and committal to writing.net development could use content management systems (CMS) to create content changes easier and on the market with basic technical skills. For larger organizations and businesses, net development groups will include many folks (Web developers) and follow customary ways like agile methodologies whereas developing internet sites. Smaller organizations could solely need one permanent or acquiring developer, or secondary assignment to connected job positions like a graphic designer or data systems technician. Net development could also be a cooperative effort between departments instead of the domain of a delegated department. There square measure 3 styles of net developer specialization: front-end developer, back-end developer, and full-stack developer. Front-end developers square measure chargeable for behavior and visuals that run within the user browser, whereas back-end developers subsume the servers. Web development has conjointly compact personal networking and selling. Internet sites are not any longer merely tools for work or for commerce, however serve a lot of broadly speaking for communication and social networking. Internet sites like Facebook and Twitter offer users with a platform to speak and organizations with a a lot of personal and interactive thanks to interact the general public.

TRADITIONAL TECHNOLOGIES IN WEB DEVELOPMENT:

Web technologies square measure typically divided in line with wherever they're used. That is, square measure they targeted on the client-side or server-side of net applications? Knowing the fundamental classes of net technologies is important if you propose to figure in net development. Thus, here could be a list of net development technologies by category:

- Browsers
- HTML and CSS
- Programming Languages
- Frameworks
- Web Servers
- Databases

- **Protocols**

A.FRONTEND TECHNOLOGIES:
1.HTML: HTML stands for Hyper Text Markup Language.HTML is the standard markup language for creating Web pages.HTML describes the structure of a Web page.HTML consists of a series of elements.HTML elements tell the browser how to display the content.
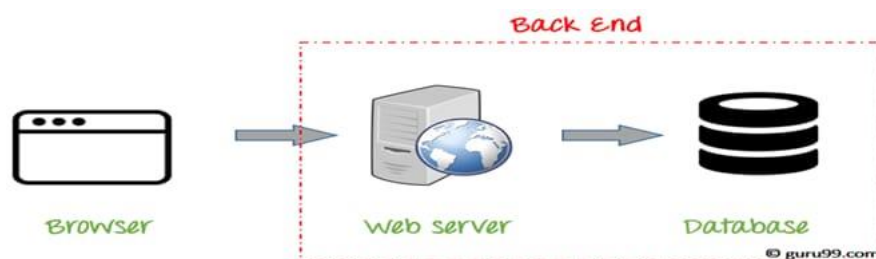
2. CSS: CSS stands for Cascading Style Sheets.CSS describes how HTML elements are to be displayed on screen, paper, or in other media.CSS saves a lot of work. It can control the layout of multiple web pages all at once. External stylesheets are stored in CSS files.

3. JavaScript: .JavaScript could be a Scripting language. It's principally abbreviated as JS. It is aforementioned that JavaScript is that the updated version of the ECMA script. JavaScript could be a high-level artificial language that uses the thought of Oops however it's supported epitome inheritance. JavaScript could be a light-weight, cross-platform, and taken scripting language. It's well-known for the event of websites, several non-browser environments conjointly use it. JavaScript is used for Client-side developments further as Server-side developments. JavaScript contains a regular library of objects, like Array, Date, and Math, and a core set of language parts like operators, management structures, and statements.

4. NodeJS: Node.js is associate degree ASCII text file and cross-platform runtime setting designed on Chrome's V8 JavaScript engine for corporal punishment JavaScript code outside of a browser. You would like to remember that NodeJS isn't a framework, and it's not a artificial language. It provides associate degree event-driven, non-blocking (asynchronous) I/O and cross-platform runtime setting for building extremely ascendable server-side applications victimisation JavaScript.

B.BACKEND TECHNOLOGIES:
Back-end development focuses on the server-side aspects of or web application. This kind of development cares with web site design, scripting, and communication with databases. Back-end code permits the communication between browsers and data from databases. Back-end developers concentrate on however a web site functions, which implies they may work with arthropod genus, code that interacts with databases, libraries, knowledge design, and more. Back-end development works in conjunction with front-end development to supply users with a useful and interactive expertise.

1. Back-end Frameworks: Back-end frameworks create it easier and a lot of convenient to create consistent and stable back ends. In style frameworks include:
a. Django
b. Ruby on Rails
c. Flask

2. Back-end Databases: Database is that the assortment of inter-related knowledge that helps in economical retrieval, insertion and deletion of information from information and organizes the info within the style of tables, views, schemas, reports etc. The back finish of a web site consists of servers, applications, and databases. Databases square measure necessary as a result of the permit websites and applications to handle user knowledge. Management systems (DBMS) acts as AN interface between the information

and its users. A software permits users to access, update, and manage data. There square measure 2 main sorts of databases: SQL and NoSQL. SQL databases square measure structured, and NoSQL databases don't seem to be structured. In style databases include:

a. MySQL
b. MongoDB
c. . Redis
d. . Oracle

CONCLUSION:

The World Wide internet represents the highest technology to the perfect of a very distributed network atmosphere for polymorphic communication. As such, it should be although of as a paradigm shift aloof from earlier network protocols. Web Applications design issues the look and implementation of pc code that runs on internet servers, rather than running only on desktop computers, laptops or mobile devices. The emergence of responsive web design, more than six years ago, showed us the vision for our future sites: a world where users can have great experiences no matter what devices or what screen sizes they have those experiences on

REFERENCES:

[1] A Literature Review: Web Design & User Engagement.
[2] Reene Garett, MS, LCSW, 1 Jason Chiu, MS, Ly Zhang, and Sean D. Young, PhD, MS2,3.
[3] www.w3schools.com
[4] Website Development Technologies: A Review.