Quality Assurance Report

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1. **What does Quality Assurance mean for web site development?**

   Website quality assurance, or QA, optimize and develop to ensure everything on the website looks and works correctly on all devices and browsers. For optimization, quality assurance ensures the quality of a site before visitors suffer some slow loading, website distortion and some defects, apparently due to code errors. To make a quality assurance, we need to take a series of activities to make sure the website meets the specified requirements, standards and procedures, and the best practices. Finally, we use [w3c unified validation website](#) and [w3c css validation website](#) to check website quality. It checks the website for any errors, weaknesses, and potential points of failure before it goes live, or becomes available to real users. We need to take time debugging the code of there is any errors showed up. [1][3]

   Quality assurance:
   - First need to make sure your website meets customer needs.
   - Check the website page by page to make sure they functioned as desired.
   - Looks for bugs, glitches, errors, broken links, points of friction, etc.
   - Creates a faster, cleaner, better site that works the way we desired.

2. **Describe the two key principles of Quality Assurance: "Fit for Purpose" and "Right First Time."** [4]

   "**Fit for Purpose**": means the product or service meets our designed purpose. "**Right First Time**": means we need to make sure the website is correct at the first time, so we don't need debugging afterward which needs much more effort and time. To do this, we need to make sure we use correct method from design, programming, page connections and testing, and then we need use w3c website html and css validators to do final check.
   Right procedure and good habit save a lot of time for web developments.

3. **How does web standard relate to web quality?**

   Web standard are rules and guidelines established by the World Wide Web Consortium (W3C) developed for web developer to follow in the design code and web development. This is the bible of web developer. If every web developer follows the same guideline, this will simplify the coding procedure and cause less issues. Without getting technical, simply it's the guideline for the mark-up

language which determines how a web page displays in a visitor's browser window.

4. **Describe what Web Accessibility means. What steps you can take to make your pages more accessible?**

<u>Describe what Web Accessibility means:</u>

Web accessibility is to design and develop a website for disabled people. When we design and develop a website, we need to use all the possible tools and technologies to make the website friendly and accessible for people with disabilities.

Below are from w3c website described definition of Web Accessibility: [3]

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them.
More specifically, people can: a) Perceive, understand, navigate, and interact with the Web. b) Contribute to the Web.

What steps you can take to make your pages more accessible?

Web accessibility is the responsibility of every web developer. It has social importance, economic opportunities, and legal requirements.

Below is comprehensive description from web assurance website stardust-testing.com for the way we can make web more accessible. [2]

The goal of web accessibility is to remove all barriers that can hinder a person's ability to access, navigate, or understand content on the Internet. Here are 10 tips you can follow to build or maintain an accessible website:

1) Use a CMS (Content Management System) that supports accessibility.
   When building a website, choose a content management system (CMS) that supports web accessibility. Be sure that page layouts, themes, widgets, plugins, and other aspects are compatible with web accessibility standards such as WCAG 2.0.
2) Structure and organize with headers.
   Headers are a great resource that, when used correctly, structure and organize content on a webpage. This allows all users to easily navigate your webpages, and even improve your SEO score making it easier for you to generate more traffic to your site.
3) Assign alt tags for images
   Images on a webpage provide great value to users. Nonetheless, they can create barriers for users with limited or impaired vision. Therefore, assigning

alt tags to images will provide a description of the images allowing users to understand the image through the use of a screen reader. Alt tags also contribute to a higher SEO score on Google.

4) Use descriptive title for links
Using descriptive titles for links will make it easier for those who rely on screen readers to navigate your website to understand the purpose of the link and where they will be redirected.

5) Use colors carefully
Colors can help your users easily distinguish different sets of information. However, color blindness and other disabilities can make it difficult for users to find information, call-to-action buttons, or other aspects when developers fail to maintain a proper contrast of colors. To check the contrast of colors on your site, add the Google Chrome extension.

6) Design forms for web accessibility
When designing online forms, it is important to properly label text fields with a descriptive title so people who rely on screen readers can properly complete the forms. Using label tags or an ARIA property will increase the accessibility of your webforms.

7) Use tables for tabular data
When tables are used for page layout purposes, users that rely on screen readers can face extra difficulties in understanding the content. This is due to the fact that the content may be read in a way that does not match the visual order of the page. As an alternative, use a CSS presentation, not a table, to structure the layout of a web page.

8) Ensure site navigation via a keyboard
A major part of web accessibility is ensuring barrier free navigation for millions of users with motor function and vision difficulties. As a result, verify that your website can be fully navigated using the tab and arrow keys or alternative hardware such as a mouth stick or single-switch input.

9) Turn dynamic content into accessible content
When embedding videos or gifs into your website, it is important to provide closed captions and text alternatives for users with hearing or visual impairments. Additionally, use ARIA properties when content on a webpage is added or updated without having to refresh the page, which will ensure that screen readers become aware of the new content.

10) Validate web accessibility
Validating your website through accessibility testing is an important step in the process of uncovering any bugs or design flaws that prevent people with disabilities from accessing your site and its content.

Reference:

[1] CXL Optimizeation Agency <https://cxl.com/blog/website-quality-assurance/>
[2] StarDust CTG Group <<https://www2.stardust-testing.com/en/10-tips-for-web-accessibility>>
[3] W3C website <<https://www.w3.org>>

[4] Designing Buildings Wiki
<<https://www.designingbuildings.co.uk/wiki/Quality_assurance>>
[5] WIKIPEDIA <<https://en.wikipedia.org/wiki/Quality_assurance>>