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VLL

Internet Services

STD Document

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Table of Contents

1. Scope

Software Testing Documentation (STD) in a document which provides both the costumer of VLL Internet Services, Mr. Harry Vega, and the developers VLL Internet Services information about the quality and performance of VESA Claro under certain test. In the perspective of VLL Internet Services it serves as an objective and independent views of how effective is the website and the risk that will have publishing the software without repairing the error detected by the tests. The tests we are going to conduct will help use determine any bug, missed link and performance that the website has. This document also serves as the process of validation that VESA Claro:

- Meets the establish requirements in the guide of development.
- Works as expected.
- Can be implemented with the characteristic that where taken in consideration by both the client and the developer.

For all these reason, VLL Internet Services takes this test seriously in order to complete all our client specification and requirements. By doing these entire tests and fixing the errors we can assure that our product has the best quality, performance, security and effectiveness.

1.1. Test Approach

Testing for VESA Claro will be done by several tools and techniques. These tools will test the software in its speed, performance, efficiency, broken links or bugs. At the beginning test are done to a part of the software so specific errors can be discover part by part of the complete code which can assure us that the product is correctly implemented. In the object oriented programming world, this small section to be tested are call classes which includes a constructor and a destructor for the element of the classes. After that is done, the test will start testing for links between the classes in order to determine if any broken links or connections are detected. The system test analyzes the complete integration of all the elements of the software. Integration tests verify that the integration between the software and any external or third party system such as the database are implemented correctly.

Before publishing the final version of the software it is going to pass by al two steps of beta testing to ensure the full function ability of the software. The first one will be done by all the developers of VLL Internet Services where professionals in the material will check for the performance or errors in the product. After this step is done and the errors if any are fixed the product will go to the last step before the official publishing.

In this step the software will be tested by a selected group of people which are not necessary expert in the field to have the feedback of their experience. This selected group represents a small portion of what eventually is the entire group that will access the website.

2. References
   IEEE Std 610.12-1990, IEEE Standard Glossary of Software Engineering Terminology.

3. Definitions

Acronyms

Acronyms	Definition
STD	Software Testing Documentation
VLL	Vega López López
VESA	Vega & Santiago
WWW	World wide web
HTML	Hyper text markup language
CSS	Cascading Style Sheet
DNS	Domain name system
W3C	World wide web consortium
ISP	Internet Service Provider

Definitions

Term	Definition
VLL Internet Services	A company that dedicates to creation, design and modification of web address.
VESA Claro	A product or software created by VLL Internet Services that consist of web page for wireless communication company
Bug	Is the most common term used to describe a software error, mistake, failure or an unexpected results.
Object Oriented Programming	Is a programming type that generally uses data structures “objects”. These consist in data fields and methods together with their interaction to design application and computer programs.
Beta Version	Is can be referred to an unofficial software version that are release for kind of people with the purpose of find possible bugs, before release the official version of this software.
Website	Is a document or information resource that is suitable for the world wide web can be accessed though a web browser and displayed on a monitor or mobile devices.
Administrator	a person that manage administrative business operations. In this case are managing the web page.

Term	Definition
Regulatory Agencies	Is a public authority or government agency responsible for exercising autonomous authority over some area of human activity in a regulatory or supervisory capacity.
Web Browser	Is a software application for retrieving, presenting, and traversing information resources on the World Wide Web.
Developer	One who programs computers or designs the system to match the requirements of a systems analyst.
Uniform Resource Identifier	An information source for the browser.
Cascading Style Sheet	Is a style sheet language used to describe the presentation semantics (the look and formatting) of a document written in a markup language.
Hyperlinks	Is a reference to a document that the reader can directly follow. Is also known as link.
DNS lookup	is a hierarchical naming system built on a distributed database for computers, services, or any resource connected to the Internet or a private network.
Server	Carrier-grade computing platform for communications networks
Response Time	The time a generic system or functional unit takes to react to a given input.
Optimize	Refers to choosing the best element from some set of available alternatives.

4. Test Plan

A guided plan would be develop in order to achieve a better life for the product. The plan will detail which test should be done and when they should be implemented. All of these tests can be implemented when an update is done or just for a regular maintenance to the website. The results of the tests can be implemented as a pass or failed scale that can be determine by the client, the administrator, regulatory agencies, the developer or anyone that in the future is involve with the software.

The tools for performing the test will be describe during this document.

As developers we have the responsibility of creating a detailing guide of the tests and how should they be perform and in what part of life the product life should they be implemented. This creates an organized plan structure, the necessary equipment for now and for the future and if any modification will be require in the future

Finally, a plan should be develop where the test can be standardized and the result should be store to keep track of all the details during the life of the software.

4.1. Features to be Tested

4.1.1. Browser Impedance

4.1.1.1. Tool to be used

http://browsershots.org/

4.1.1.2. Description of Feature

A web browser is software used for retrieving, presenting, and connecting information on the World Wide Web. An information source for the browser is identified by a Uniform Resource Identifier. The source can be a web page, image, video, and HTML code like our any other feature compatible with the product.

4.1.2. CSS

4.1.2.1. Tool to be used

http://jigsaw.w3.org/css-validator/

4.1.2.2. Description of Feature

CSS stands for Cascading Style Sheets which is a style sheet language used to describe the presentation semantics, the looks and formatting, of a document written in a markup language. It's the most common tools to style web pages written in HTML. It provides the separation and customization of content from elements of documents such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics. It enables multiple pages to share the same format without having to do it separately eliminating code, complexity and repetition in the structural content. A CSS style sheet is done with the necessary customization and then implemented to the HTML code by calling the custom formatting made by the developer.

4.1.3. HTML

4.1.3.1. Tool to be used

http://validator.w3.org/

4.1.3.2. Description of Feature

HTML stands for Hypertext Markup Language which is the predominant markup language for webpages. It contains the necessary structures for a web browser to display its content in the format which it is written. Pairs of "tags" indicate the start and end of a heading, body, links or any type content to be display Each tags denotes the structure of the code which is used by the web browser to interpret the content of the page. HTML is the base of a website, a numerous languages exists that can be incorporated with the HTML add features which the HTML language does not support. Since HTML is the base of the website an error in the code will produce a failure in execution of all the code.

4.1.4. Links

4.1.4.1. Tool to be used

http://validator.w3.org/checklink/

4.1.4.2. Description of Feature

Links are also known as hyperlinks or Web links which is one of the key features of the success of HTML. It provides the code to interact with internal or external sources. Links can be used to connect the code with an image, a video clip, a sound bite, a program, an HTML document, an element within an HTML document, etc. It consists of two ends called anchors and a direction. The link starts at the source anchor and points to the destination anchor.

4.1.5. Speed and Performance

4.1.5.1. Tool to be used

- Speed: http://rapid.searchmetrics.com/en/seo-tools/site-analysis/website-speed-test,46.html
- Performance: http://browsermob.com/free-website-performance-test

4.1.5.2. Description of Feature

Besides the functionality of the code by itself it is very important to check for the speed and performance of the website. A high speed website means that users can navigate through all the content of the page without having to wait for the data to load and be display. It is also accomplish by a high speed internet service but the product itself has to be design and tested for high speed capability. Performance is another key requirement of the website. It is accomplish by minimizing the communication between the web browser and the code.

4.2. Features not to be Tested

4.2.1. Security

Security test will be implemented by the developing team of VLL Internet services. The results will be documented the by developing team.

4.2.2. Website Pulse:

4.2.2.1. Tool to be used

http://www.websitepulse.com/help/tools.php

4.2.2.2. Description of test

This test verifies the server status, downloads the full HTML code and measures the response time of the test website. The test results display the times for DNS lookup, connect, download the first byte and download the complete HTML of the tested website.

5. Test Cases
   5.1. Browser Impedance
      5.1.1. Description of Browsershots

Browser shots makes screenshots of your web design in different operating systems and browsers. It is a free open-source online web application providing developers a convenient way to test their website's browser compatibility in one place. A number of distributed computers will open your website in their browser and a result will be display.

      5.1.2. Material to be used

http://www.vesaclaro.com

      5.1.3. Expected results

VLL Internet Services expect VESA Claro to be compatible as it is stipulated in Software Requirement Specification with the following web browser:

- Google Chrome
- Internet Explorer
- Mozilla Firefox
- Opera
- Safari

   5.2. CSS
      5.2.1. Description of W3C CSS Validation Services

W3C CSS Validation Services searches for errors and potential problems in the Cascading Style Sheets.

      5.2.2. Material to be used

http://www.vesaclaro.com

      5.2.3. Expected results

VLL Internet Services expect VESA Claro to have 5 or less errors in their CSS.

   5.3. HTML
      5.3.1. Description of W3C Markup Validation Service

W3C Markup Validation Service checks for the markup validation service of the HTML code.

      5.3.2. Material to be used

http://www.vesaclaro.com

      5.3.3. Expected results

VLL Internet Services expect VESA Claro to have 5 or less errors in their HTML code

   5.4. Links
      5.4.1. Description of W3C Markup Validation Service

W3C Link Checker verifies for any broken links and anchors in the website

5.4.2. Material to be used
http://www.vesaclaro.com

5.4.3. Expected results
VLL Internet Services expect VESA Claro to have 0 error link errors.

5.5. Links

5.5.1. Description of Website speed check
Website speed check shows the duration of a given website. This value can be used for showing how long a website takes to load and if it is better to optimize the website or change the ISP. BrowserMob gets the performance data on any website without having to create a test script.

5.5.2. Material to be used
http://www.vesaclaro.com

5.5.3. Expected results
VLL Internet Services expect VESA Claro have no problem with neither the speed nor the performance of the product. The speed test will be implemented in different locations with different ISP and speed connections to assure that with any typical speed connection the website can be navigated flawlessly.

5.6. Vesa Claro web page toolbar test

5.6.1. Description of web page toolbar test
The Vesaclaro.com toolbar has several bottoms with their respective functions that are showed to the customers with the content of Vesa Claro webpage. This test will be implemented in the different toolbars and in the different web browsers to insurance compatibility success and content displayed successfully.