

Website Programming Evaluation Using Analysis And Checking

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ABSTRACT

developing the product is one of many Reasons behind using evaluation process , evaluation process can be done in many ways in this paper checking is the main way used in order to evaluate the website inner layers (sourcecode) in order to detect programming errors, analysis is the second ways used in order to find the degree in which the inner layer reflect the outer on (the visual layer) , the result shows that most websites have a high ratio in checking the inner layer but middle ratio or less in the second evaluation part .

Keywords: website layers, evaluation mythologies, web developing.

1. INTRODUCTION

Evaluation of websites still a challenging, but, in spite of that there is no reason prevent website programmer from using tools in website programming stages in order to access to an acceptable level of quality, we can classify tools that can help website programmers depending on A website programming stages as planning, coding, testing, deployment and tracking that the tool interest to in order to evaluate the quality of this website, this paper works on testing stage, we can also classify tools that working on test website programming but depending on the layer as sourcecode, compile and visual of web site that this tool work on, this paper work on two of these layers the sourcecode and the visual one by detecting how much of the virtual entities as videos, images and links in A sourcecode layer is really reflected as an entities in the visual layer, some math also used in this detection operation to arrive to the end ratio, that may help website programmer to evaluate his website in order to rectifies some capes in . this kind of measuring can be public for all websites fields as business, education, sports or others .

LITERATURE REVIEW

In (2004) Vassilis S. Moustakis, etc, write an article that presents a hierarchical framework which supports website quality, the framework enhance criterion and subcriteria by makes use of the Analytic Hierarchy Process.[1]

In (2009) Saleh Alwahaishi, etc, write a paper that proposes an index that assesses the websites in four distinct areas informational content, transactional content, website design, and passenger enjoyment support which called Airline Website Assessment Index (AWAI).[2]

In (2012) K.S Kuppusamy and G.Aghila writing a paper that proposes a bottom-up evaluation process of web page from the segment level to the page level.[3]

In (2014) Kavinder Kumar Singh and Praveen Kumar write a paper that describes thoroughly an website evaluation process that concerned with two major quality characteristics.[4]

WEBSITE LIFECYCLE

As other software, website lifecycle is a sequent steps, but not all Software Lifecycle Models can be apply when programming a website, because there is no small delivery shot or a part of website present to end browsers in waiting for other parts to be programmed, so that traditional models can simply used as shown in “Fig. 1”, This work is combined within testing stage of website lifecycle .

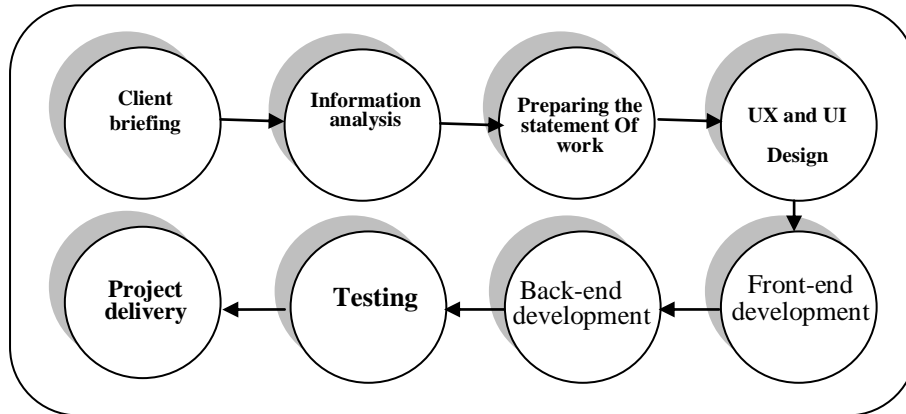


Figure 1: website lifecycle steps [5]

EVALUATION METHODOLOGY

Website is a set of Overlapping pages on is the main or home page and others are subpages, each of which has three layers as mentioned in the abstract , the evaluation methodology in this work stand on two main parts:

A. Checking

An error check list is used to evaluate programming sourcecode (inner layer) , this check list contain a set of classified programming errors that websites programmers normally do when they writing there website sourcecode, see “Fig. 2”, the environment of this part is a website URL as input and the result checking ratio as an output .

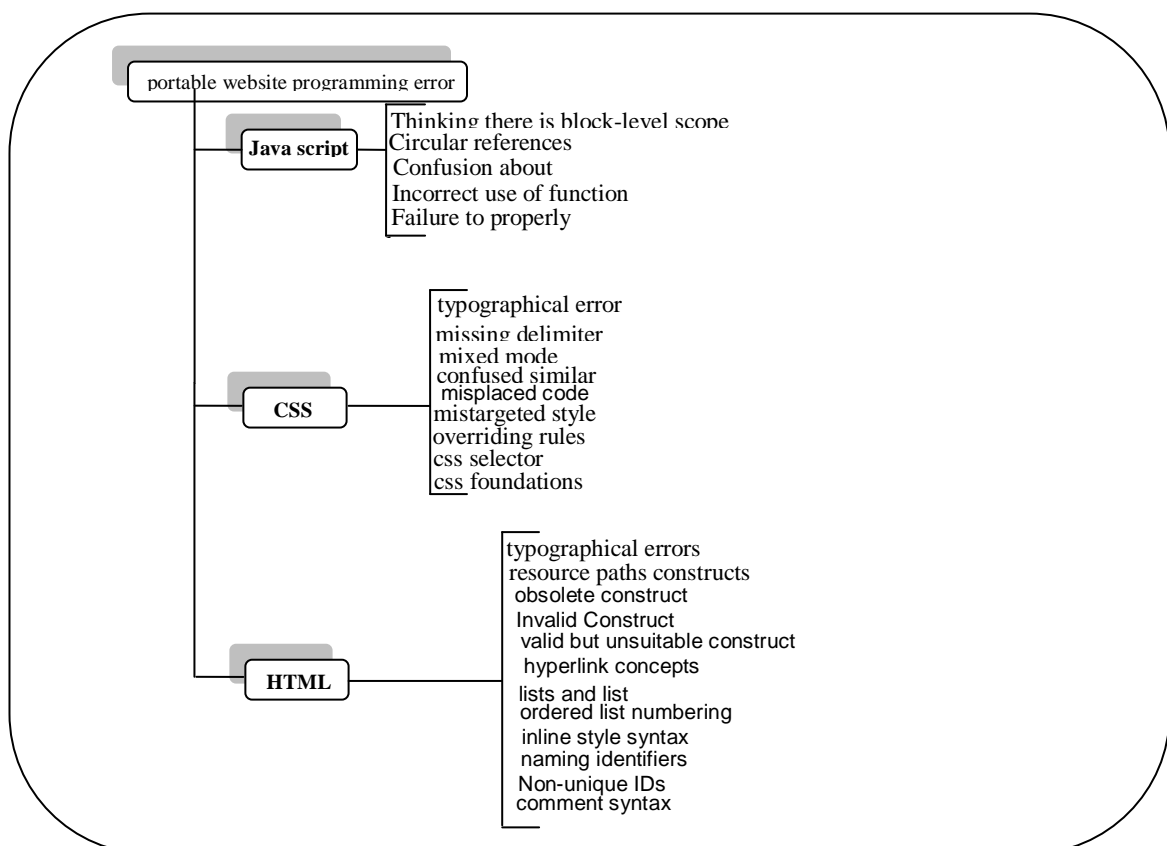


Figure 2: website programming errors check list[6][7]

Defect Density is used to produce end error ratio see Equation 1 , Defect Density is a measure showing the ratio of defects against the size of a development . [8].

$$DD = \frac{\text{Number of defect}}{\text{Size}} \quad \text{Equation 1...[8]}$$

B. Analysis

not every virtual component subsourcecode written in website sourcecode is real, really here means that the virtual items as videos, images, links, and others, is real viewed to the reviewers as an Playable or openable entity, so, to evaluate website from this point of view a website analyzed using simple matching process detection, and segmentation process Algorithm called Vision-based Page Segmentation Algorithm (VIPS)* after adding “contain_video” and “is_video” to segmentation process in order to analyze the website and evaluate the virtual component of it, see “Fig. 3”, .

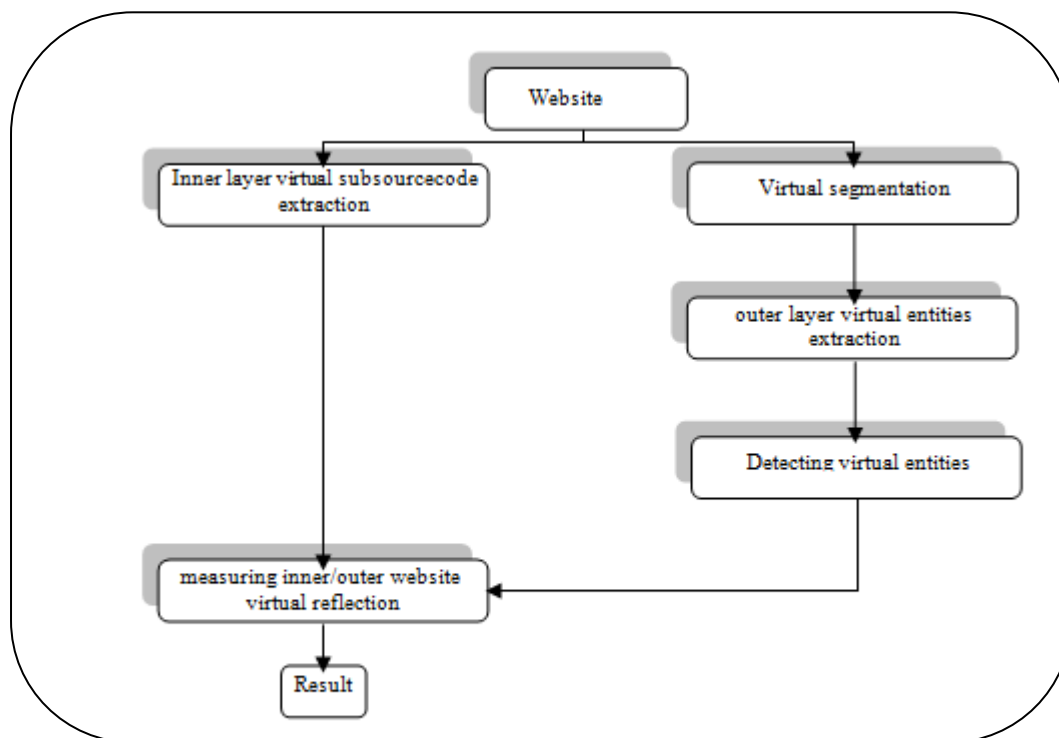


Figure 3: measuring inner/outer website layer reflection

Equation used in analysis part to result the end ratio is :

$$\frac{1}{N} \sum_{i=1}^N (S/V) \quad \text{Equation 2}$$

- N: the number of virtual element types detected in website .
- S: the summation of virtual subsourcecodes detected in website inner layer.
- V: the summation of real virtual entities detected in outer layer.

The mean of both evaluation parts result is the End result and the inverse result of this result is the end ratio see equation 3.

$$\frac{1}{2} \sum (100-T)$$

Equation 3

Results: a set of websites with different specialties are evaluated using methods mentioned above, execution time was oscillatory, any way, this is another story!, checking results was convergent will analysis one was occasional rather, the result is shown in Table 1. Note that in table 1 websites URLs are referenced, you can find resource URLs before reference.

Table 1: Website Programming Evaluation Results Using Analysis And Checking

Website URL	checking result: error ratio	Analysis result: I/O reflect	Validation Result
A	0.14910889	57.0	71.42544555500001
B	0.07455444	58.0	70.96272278000001
C	0.12425232	58.0	70.93787384000001
D	0.6212692	58.0	70.6893654
E	0.07455444	73.333336	63.29605478
F	1.5407562	73.93577	62.261736899999995
G	1.0685883	77.5	60.71570585
H	0.2236557	78.70968	60.53333215
I	0.84493256	89.21811	54.96847872
J	1.2425461	90.0	54.37872695

CONCLUSION AND FUTURE WORK

As shown in table 1 programmer recently may arrive to an acceptable knowledge level in website source code programming, but, in website world, that is not enough, at the end the outer layer that will be displayed To the viewers is the prefect, programmers still need to focus on the outer layer beside others website layers. In the future work we recommend to design an automated tool which have the ability to checking all probable Errors with all existing website programming languages and analysis all probable virtual entities such like subscribe and others.

Websites URLs

- A. <https://www.ounousa.com/Article/FashionVeiled>
- B. <https://www.deutschland.de/ar/topic/alaqtsad/markat-waswaq/brlyn-mdynt-msan-alnzarat>
- C. <http://www.berwaz.com/subject/islamic.html>
- D. <http://www.albayan.ae/economy/capital-markets/2017-07-27-1.3010569>
- E. <http://www.who.int/mediacentre/factsheets/fs220/ar/>
- F. <http://www.encyclopediacooking.com/arabic/cat-39-1.html>
- G. <http://uae.argaam.com/company/companyprofile/marketid/1/companyid/1>
- H. <https://www.alaraby.co.uk/politics>
- I. <https://plus.google.com/+GeneralcultureNet>
- J. http://www.aun.edu.eg/faculaty_fine_arts/arabic/

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