Android Based Modern Web Application Scanner & Guide

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Abstract — The Web arrived it's arguably biggest platform shift in our lifetime. It brought internet to many people radically changed industries fundamental how people interact and connect with each other. About 10 years later. In the mid 2000's the advent of smart phones we had mobile revolution that brought computing half the world population and pro founding changing people's lives and shift continues. If we look at those numbers Statistically Around 40% of the world population has an internet connection today. In 1995, it was less than 1%.The number of internet users has increased tenfoldfrom1999 to 2013.The first billion was reached in 2005. The second billion in 2010. The third billion in 2014 according to International Telecommunication Union (ITU), World Bank, and United Nations Population Division. These tremendous increase is due to business and start-ups using social platform connecting to the user through social platform, blogs etc. The idea behind the project is to create mobile application which will help to test, prototype & scan web application for vulnerability compatibility and help in development & design. It will also have the In-app book version which could guide about making website. We have chosen an Android platform for it because it's an open platform has maximum number of users and it's trendy.

Keywords —Cataract, Codebase, Crawler, Responsiveness, SEO, Sql Injection, Typography.

I. INTRODUCTION

In this project our main modules consist of Web Crawler, Responsiveness, Typography, Sql Injection, and Search Engine Optimization. In this paper we have represented a detailed study on this respective module with their current trends and factor affected by them and role of this module in web development.

II. PROBLEM STATEMENT

A. Increase in the Web

In this digital age there is a tremendous increase in the Web, According to a report the increase in the last 2 years itself is from 30% to 70%. Nowadays Business and the Starts-Ups are approaching they are trying to concentrate on social platform to reach across the maximum no of users. Since lot of people send high amount on internet. So it's important for the business to focus on them. As web is increasing the problem related to the web are also increasing.

B. Text–correction

As we have seen the web has become the platform for the Business and the Starts-Ups. So it's important to give importance on the small issue like Spellings and grammar because according to a survey done by Global Lingo in UK. According to the survey report 74% tended to notice the quality of spelling or grammar or a company's website. When asked whether bad grammar or obvious spelling errors would stop them buying from the website, 59 per cent said it would, with the majority claiming that they "wouldn't trust" the company to provide a good quality service. Others reasons to put off due to an obvious lack of care, or would consider the company to be unprofessional.

The fact that such a high percentage wouldn't trust a company with poor spelling or grammar just goes to show crucial it is that businesses make the most of every opportunity, especially in these tough economic times. There is only short amount of time to make an impression on a potential customer, and if website or ad is riddled with grammatical

errors, it's not going to place in a favorable light. Competition is tough, and if you don't take the care to present yourself in as professional a light as possible, you may well be losing yourself important business. Figures.[11][12].

C. Search Engine Optimization

As the web is evolving dynamically, websites are increasing. So competition is getting tougher day by day. So it's important to give emphasize on search engine optimization and to be in at least top 10 pages of Search Engine[8].

D. Typography Color

Basically Typography is just about the Font, Space, Color and Alignment. Developer should have knowledge about Typography to develop a single website and should take into consideration problem of users like Cataract & Color Blindness. Developer should provide special mode for such users. Typography should be in such a way that it will reflect the characteristics of word[5].

E. Need of Responsiveness

In this digital world, there is an increase in the web user by huge margin in last few years, but there is a fall in the usage of laptops & Desktops. There are replaced by Smart phones, Tablets, Phablets & Netbooks. But Resolution of all these devices is different so there is a need for optimizing website for all these devices so as to provide best user experience to the user. So developer need to create single codebase that will work across all the resolution for all the devices. Spelling mistakes 'cost millions' in lost online sales[12].Poor grammar on websites scares 59% away [11].

F. Sql Injection

Based on Open web application Security Sql Injection has the first place in top 10 list of web application vulnerabilities the amount of damage Sql injection done in enormous hence it is necessary to prevent against the Sql injection attacks[3].

III. REVIEW OF LITERATURE

A. Literature on Web Crawler

Web crawlers continuously keep on crawling the web and find any new web pages that have been added to the web, pages that have been removed from the web. Due to growing and dynamic nature of the web; it has become a challenge to traverse all URLs in the web documents and to handle these URLs. A focused crawler is an agent that targets a particular topic and visits and gathers only relevant web pages. In this dissertation I had worked on design and working of web crawler that can be used for copyright infringement. We will take one seed URL as input[1].

B. Literature on Responsiveness

The key feature of interface web development is based on a few key features Responsive web design is defined as a set of techniques applied during the layout level of a project. Therefore, it allows a website to adapt itself to any device according to the width of screen due to various sizes of devices screen and resolution that lead to different size of layout of the same website. Therefore, it is important to further investigate the most appropriate usability principle that can be adopted in responsive web design for interface web development. This paper is aimed to analyze the most appropriate usability principles in responsive web design as a new trend in interface of web[2].

C. Literature on Sql Injection

SQL injection is one of the biggest challenges for the web application security. Based on the studies by OWASP, SQL injection has the highest rank in the web based vulnerabilities. In case of a successful SQL injection attack, the attacker can have access to the web application database. With the rapid rise of SQL injection based attacks, researchers start to provide different security solutions to protect web application against them [3].

D. Literature on Typography

Relationship of users' image to colors, that to fonts and that to the combinations of the color and the font and study of typefaces [5].

E. Literature on Search Engine Optimization

Search engine optimization techniques, often shortened to SEO, should lead to first positions in organic search results. Some optimization techniques do not change over time, yet still form the basis of SEO. However as the Internet and web design evolves dynamically, new optimization techniques arise and die. Thus, we will look at the most important factors that can help to improve a position in search results. It is important to emphasize, that none of the techniques can guarantee it and various off page SEO optimization [9].

G. Conclusion on literature

Thus we have gathered the various information in the general context of the web development and design which will be helpful in successful implementation of the respective modules of our project.

IV. PROPOSED SYSTEM

Our System is consists of the following modules:-

Responsiveness:-Our Web application will Test the sites for various Resolutions and Test for various Viewports[7].

*Typography and Color***:** The system will take the from the site as a prototype for the whole site and it will try different combination for font and color. It will improve spacing and alignment accordingly developer could make changes in his site[5][6].

*Vulnerability Testing (Sql Injection)***:-** Web application will check for vulnerabilities because of SQL attack[17].

*Search Engine Optimization Test***:** - Web application will look for the meta-tags, anchor tags, and keywords in the given URL and rank the sites according to its position in the search results. And our in app guide will suggest to improve its rank in searches[16].

V. CONCLUSION

Thus we can conclude that the project aims at developing a quality focused software which will help to build well designed in terms of responsiveness, typography and colour combinations respectively developed with respect to search engine optimization and text integrity and secure with respect to Sql injection resistance web pages for the users.

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