A web browser extension to show background images

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1 Introduction

1.1 Background to Problem

Most people usually having a sense of belonging when using most things that is they really want to show that they belong to them. In a web browser there is a default background which is not appealing to most users.

Therefore this project is focusing at making an extension which enables users to add their own pictures in the background so that it looks to their preference and desires and also be to change it over time.

1.2 Objectives

1.2.1 Main Objective

To implement a web extension which enables web browser users to edit the web browser background picture to anyone of their choice.

1.2.2 Specific Objectives

To carry out software specification in order to find the specific procedure that is to be followed to achieve the main objective.

To carry out software development that is designing and programming the web extension.

To carry out several software validation checks in order to ensure that extension meets the specifications.

To do software evolution in future to meet future user needs and expectations.

1.3 Scope

This project will only cover coding an extension for one web browser that is Fire Fox Web Browser.

1.4 Significance

The project shall bring a sense of self control and choice among the users since they will be able to see their favorite pictures at a given time in the background as they browse the web.

2 Literature Review

2.1 Related Works

2.1.1 Chrome extension for showing background pictures

This extension adds a "View background image" option to your context menus, and cross-hair action to your extension bar. If a single image is found at the location, it will open in a new tab, if multiple images are found, either on different elements at the same point or on a single element - a User Interface will be shown allowing you to select your intended image.

It picks up background images and any elements with a "src" attribute (i.e. img) - for when media is placed below other opaque elements. The developer goes on and gives a tab for responses in case you encounter any issues (e.g. false "Image not found" messages), with the page URL and info regarding where/what you've selected.(Shane Matthews, 2018)

2.1.2 Magento Extensions

Magento Background Image extension allows you to place custom background images on home, product, CMS and category pages. Show your customers the celebration and pre preparation of events through large HD background images supported with Galleries. You can define set of conditions based on which background images are displayed, show single or multiple images on any page of the site, and schedule images for future events such as Christmas, New Year Eve and Valentine's Day etc.

These extensions can show image throughout the site, can also show mutiple images in a pre-defined order, schedule background images for future events. Due the above uniques of this extension, it's not for but rather for sale.(Magento Extensions, 2018)

2.2 Conclusion

The project at work will be to make a user friendly extension whereby it is easy to install and free of charge as compared to Magenta Extensions. The users will be able to easily access it using one click on a Uniform Resource Allocator. The extension will only be able to set one image in the background up to when the owner decides to edit it and also be supported on FireFox mainly.

3 Methodology

3.1 Research

First and foremost, we will critically identify the information we need to gather in order to complete the task at hand. This through developing the fact finding plan which involves from whom we are going to collect the information, why that person, how are we going to collect it from him, when are we going to collect it and where.

We will carry out preliminary fact finding using interviewing that is to some classmates who use Firefox as their default web browser. This will in turn be vital to find out the users' expectations for this system and its related feasibilities. The collected informations from the interviewed will critically be analysed in order to present the best to the users.

3.2 System Design

we will take an Object Oriented Approach to come up with this project. A JavaScript development environment environments will be used mainly to achieve the design aspects of this system. We will come up with different objects with their instances of the system with guidance from the factual information collected. Several relationships between these objects are also defined to enable them communicate and interact as they achieve user needs.

3.3 Implementation

A user will be reqiured to open up his FireFox browser, then go to Add Extension: from there the user will be required to import the extension program file into the Extensions then instal the extension to start working.

After installing the extension the user will be required to enter a Uniform Resource Allocator or path to where his preffered image is located. At this point the background image is set to web browser and can only be changed when the user sets another or removes the extension.

3.4 Operations and Maintenance

After completion, we will run an operational test to find out if there are no inefficiencies like bugs and unhandled exceptions. In case there are any, we

will embark on debugging them as much as we can so that the system is convenient for user interaction.

Several validation checks are used to ensure the safety of the system from malicious users for the sequence check to ensure inputs follow a chronological order and combination checks to ensure all the fields are constant plus others. Input sanitization is also undertaken to ensure no injections and cross site scripts are entered into the system.

Due to changing user needs over time, we will always review and update the System after a given time period so that some changes and addition are made so that it maintains relevancy and always serve users' expectations in real time.

4   REFERENCES

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