

Feedback Response

Task 1 [M1]**Environments**Screen Resolution

In computer system, screen resolution signifies the quantity of pixels also referred as (dots) of display device such as monitor. For example, a 1366-by-768 pixel screen displays 1366 distinct dots on each 768 lines (Webopedia, n.d.). Monitors and other I/O devices are also classified by their resolution capability and termed as high resolution/ low resolution/ medium resolution. Range in each of those terms are upgrading with the developments in the technology.

According to Nielsen (2012), back in 2004 most devices had 1024 by 768 resolutions. Before that 640 by 480 or 800 by 600 used to be famous. Web site built on those days was designed to support those resolution's devices. But as the time progressed, modern screens are advanced and supports higher resolution. Hence modern websites are designed with higher resolution to support modern devices. A website design should compatible with the resolution of monitor. A higher resolution website looks modern and elegant. Chart below shows why it is necessary to take resolution seriously why designing a website.

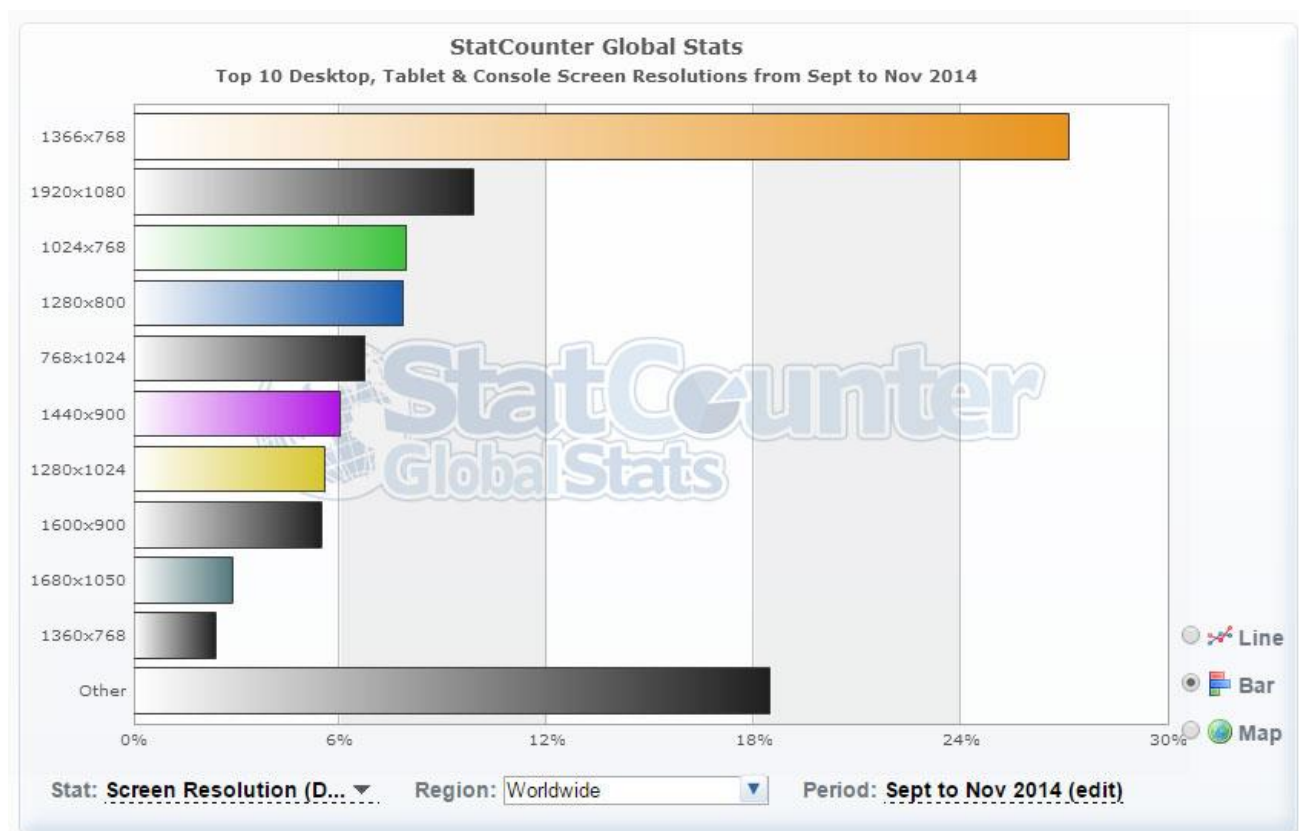


Figure 1 User of Screens based on resolution (Source: <http://www.hobo-web.co.uk/best-screen-size/>)

Above chart shows large percentage of users are using 1366-768 monitors, this means these users should be kept in mind while designing a website.

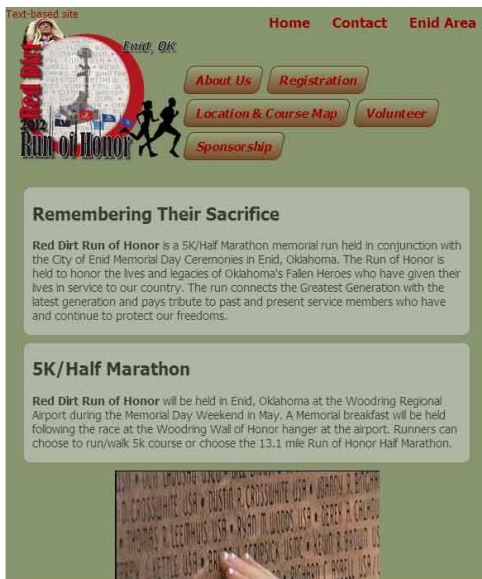


Figure 2: Older website (600X800 resolutions) (Source: <http://seemedigital.com/wid/images/rdr600ss02-24-13.jpg>)

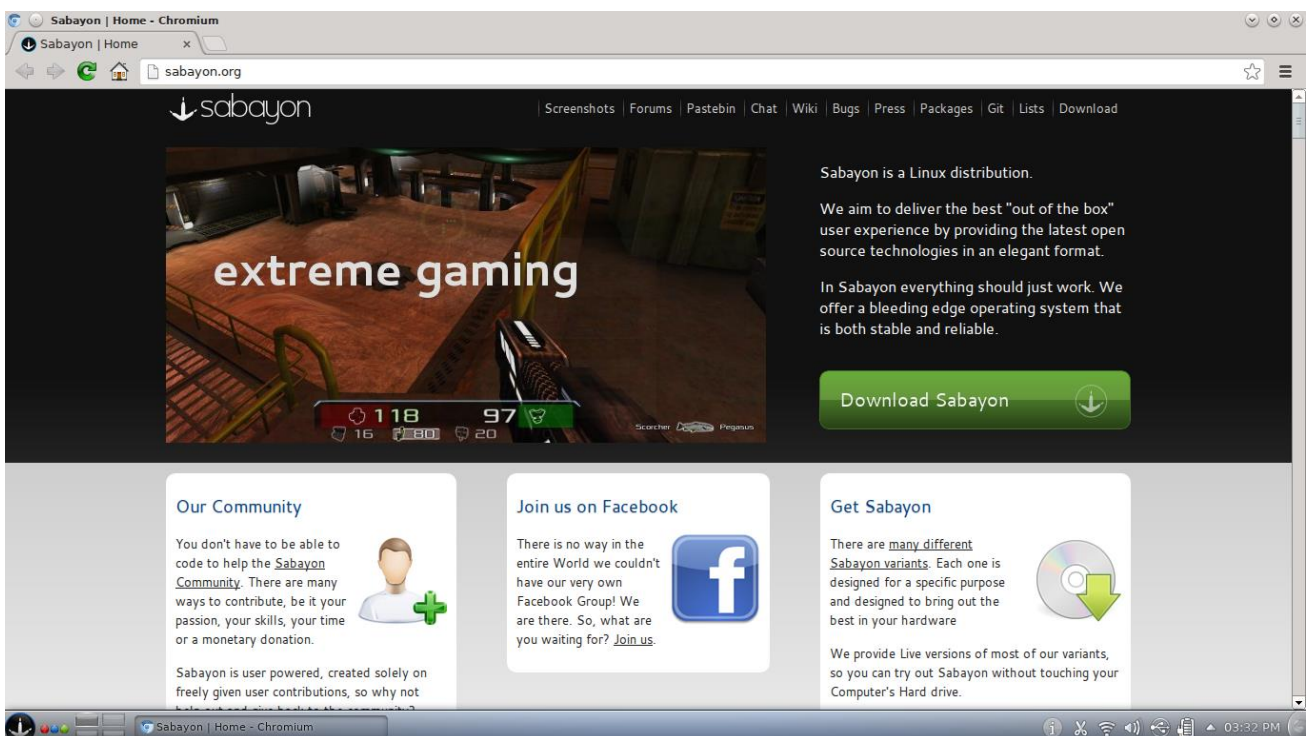


Figure 3 Modern Website with 1366X768 resolutions

Band width

According to Executionists (n.d.) bandwidth explains the level of traffic and data allowed to travel between users, internet and website. While choosing a web hosting service it is important to select appropriate bandwidth for the website otherwise performance of website may drop and can be really costly.

While designing a website band width of the website is considered. Reason for that is high number of user around the world has access to slow and expensive broadband connection. Hence, they may not afford high bandwidth website. To keep the website less bandwidth possible following methods can be used (Aptivate, n.d.):

1. Remove unnecessary images.
2. User Style sheet
3. Avoid inline style
4. Turn ON compression on server to compress the file size
5. Avoid flash, pdf. Etc
6. User cache
7. Minimize unnecessary animations, java scripts etc.

Color Depth

Different system supports different color range based on the capacity of their screen. Older computers used to have 8 bit color support meaning they could give only 256 specific colors. Then later computers of 16 bit color support could give up to maximum of 65,536 different colors. But modern computers have 32 bit color support in graphic hardware. This means they can give maximum of 16,777,216 different colors. Modern website is built to utilize the advantage of modern computer.

More color range means more beautiful website can be designed. Generally all modern computers supports 32 bit color range and only few users around the world may still be using older computers. Hence that is also kept in mind. A statistics published by W3schools (2014) around 98.5% internet users around the globe uses 32 graphics hardware.

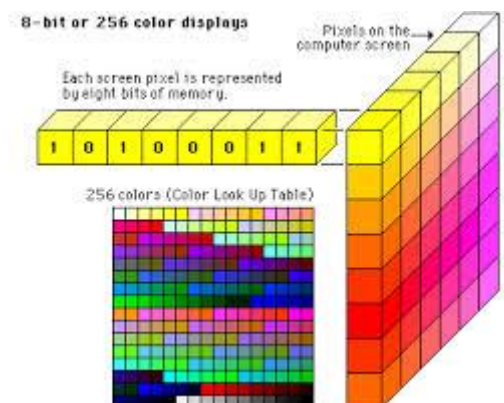


Figure 4 8 Bit (256) color range

Design

Loading Time

Loading time of a website and bandwidth are interconnected. The less a bandwidth website has the less time it takes to load. Website containing webpages of large file size takes longer time to load. It makes more negative impact on website experience when user is browsing from a slow internet connection. Hence it is necessary to keep web pages as much as small as possible to reduce loading time. Other methods to reduce loading time are similar to methods to reduce bandwidth. For example, use of style sheet, avoiding unnecessary java scripts, reduced image size etc. are some methods to make webpages smaller in size. Loading smaller pages takes less time to load.

JPG vs. PNG

JPG and PNG are two different file system for image format. Generally PNG files occupies less space than JPG files. But Webweaver (n.d.) suggests, jpg files are more sharp and better of photographs, galleries. PNG image files are used in menus, buttons, backgrounds etc. as it support transparent background. This really helps to design good looking website and reduce overall size of webpages.

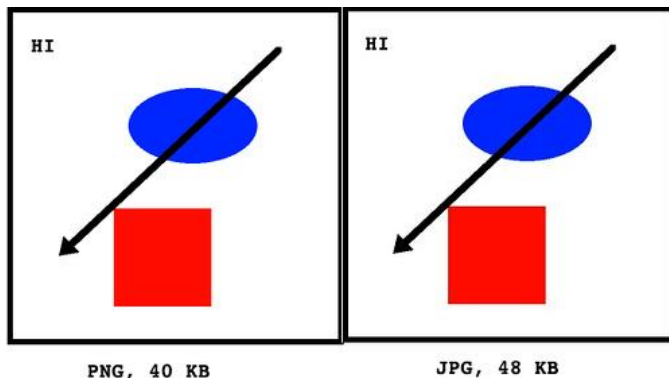


Figure 5 File size in different image format

Layout

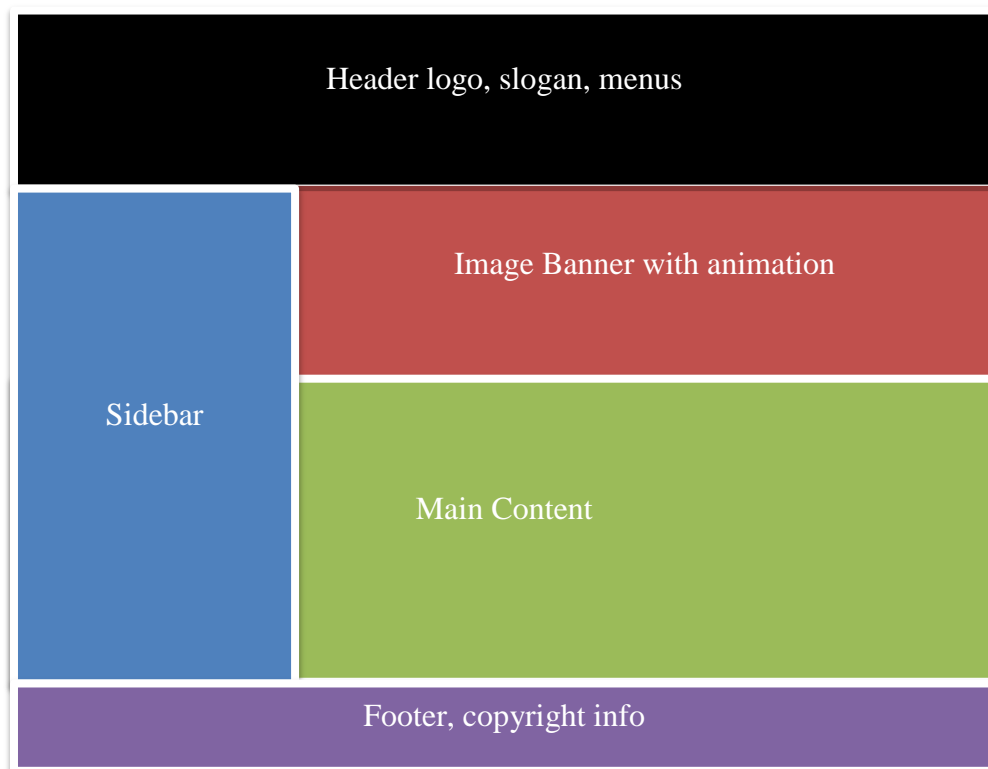
In past days before the concepts of bandwidth, loading times, different environment, accessibilities etc. became important issue, websites were used to be table based layout. Websites were built and managed in rows and columns and each elements of website used to be kept in cells of table. But this method failed to satisfy modern requirements of above listed concepts like loading time, bandwidth etc. To eliminate those issues separated style sheets are used. CSS (style sheet) allows designer to design older looking sites as well as modern looking websites. Some of the benefits of applying CSS

of table based layout are listed here:

1. Smaller webpage size
2. Accessibility
3. Maintaining consistency is easier
4. Faster page load (less bandwidth)
5. Updating/Upgrading website is less expensive, etc.

Information Structure

Information in a website is required to be displayed in some specific, constant layout. This layout for information display, webpage is managed using style sheet. In header Name of website, slogans, menus etc. are kept. Similarly website has other areas such as sidebar, main container, footer etc. Specific information is kept in specific layout area and consistency is maintained in whole website.



Site Analysis

Color Blindness

Color blindness is a type of disability that forbids a person to information from certain colors. They are able to recognize only few colors range. Due to this inability they find it hard to play games, get information from certain websites, videos etc.

Color blindness is not a rare disability which can affect only very few customers but color blindness exists in large number of people. This makes designer to take color blindness seriously. There are some methods which can reduce this issue. One of them is to create monochromatic website (Turnbull, 2011). Designer should make high contrast website hence color blind can find it less disturbing.



Figure 6 not optimized page for color blindness

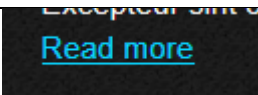

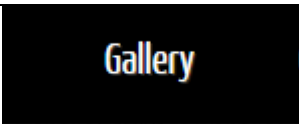
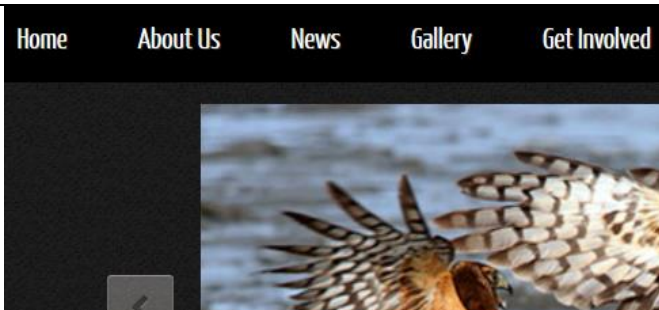


Figure 7 Color blindness optimized webpage

References

- Aptivate (n.d.) *Ten Rules for Designing for Low Bandwidth* Available: <http://www.aptivate.org/webguidelines/TopTen.html> Accessed [11/21/2014]
- Executionists (n.d.) *An Explanation Of Bandwidth: What It Means And How Much You Need* Available: <http://www.executionists.com/blog/an-explanation-of-bandwidth/> Access [11/20/2014]
- W3school (2014) Browsers displays Available: http://www.w3schools.com/browsers/browsers_Display.asp Accessed [11/21/2014]
- Webopedia (n.d.) *Resolution* Available: <http://www.webopedia.com/TERM/R/resolution.html> Accessed [11/20/2014]
- Webweaver (n.d.) *Formatting Tips To Speed up Your Website* Available: <http://www.webweaver.nu/html-tips/load-time.shtml> Accessed [11/21/2014]

Task 5 [D1]**Unit Testing**

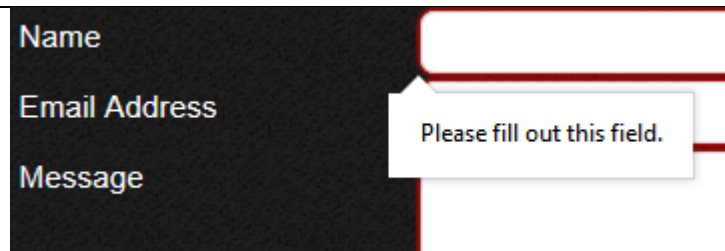
S.N	Test Date	What was tested	Expected Output	Actual Output	Test Result
1	10/30/2014	If hyperlink is working	Clicking hyperlink (read more) link should open new page with detail content	Our mission free education project page was opened when clicked on read more hyperlink in projects page.	OK
Hyperlink			New page Opened		
					
Evaluation: To perform test on hyperlink to find if there is broken link in website different hyperlinks in website is checked. Clicking the hyperlink should open the page that link is associated with. For example, here read more from side bar is clicked. After click new page with detailed information was opened. This showed test was successful. Other similar tests also failed to find any broken link in website.					
2	10/30/2014	Menu button click	Clicking on menu should open specified webpage	Opened webpage associated with the menu	OK
Menu			New page Opened		
					

Evaluation:

Another unit that is tested during unit test is Menu. When user clicks on menu, new page must open. To perform this test each menu buttons were checked by clicking them as shown in figure above. Clicking menu button opened new page showing menu links are working correctly. It is very important to make sure there is no broken links as it can affect the reputation of website.

Stress testing

S.N	Date of Test	What was tested	Expected Output	Actual Output	Remark
1	10/30/2014	Leaving blank field in form fields	Should give warning message saying blank field	Gave error message when blank field was left	

Error message while leaving blank field


A screenshot of a web form with three input fields: 'Name', 'Email Address', and 'Message'. The 'Name' field is empty, and a red border highlights it. A white tooltip box with a red arrow points to the 'Name' field, containing the text 'Please fill out this field.'.

Figure 8

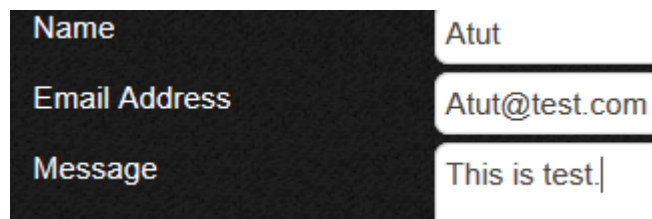
No error message while submitting valid data


A screenshot of the same web form as in Figure 8, but now all three input fields ('Name', 'Email Address', and 'Message') contain text. The 'Name' field contains 'Name', 'Email Address' contains 'Email Address', and 'Message' contains 'Message'. A 'send' button is visible at the bottom right of the form.

Figure 9

Evaluation:

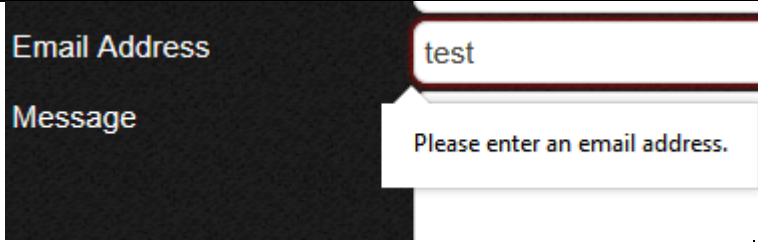

For stress testing form validation is tested. In first test textbox was left empty while submitting form to check whether it accepts blank form. First submission was failed and showed error message. Then to check the result when correct data is submitted, data as shown in figure (10) was submitted. As expected no error was displayed after submission. This shows the form is well validated and spammers cannot insert blank data while submitting a form.



A screenshot of the web form with three input fields: 'Name', 'Email Address', and 'Message'. The 'Name' field contains 'Atut', 'Email Address' contains 'Atut@test.com', and 'Message' contains 'This is test.'.

Figure 10

2	10/30/2014	Providing invalid	Should give	Displayed	
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		email address	warning message saying provide valid email id	error message when provided invalid email	
While submitting invalid mail address			While submitting valid address		
					
Figure 11			Figure 12		

Evaluation:

Another test performs for stress testing was inserting wrong email address in email field of web form. For this first invalid email address with no '@' sign was submitted. It failed to submit the form resulting error message. Now as shown in figure (13) valid data was tried to submit. No error was displayed after clicking on submit button.

Name	Atut
Email Address	Atut@test.com
Message	This is test2

Figure 13

Task 4 [D2]

Prepared slides are in separated pages below.

Task 8 [M3]

Data Collection Mechanism

Form

A form in webpage is element that allows user to enter data and send it to server for processing. Form consists of text boxes, text area, check boxes, radio buttons, file, and reset and submit button. In this website there are two different web pages that contain forms. Form used in donate us page collects data of user that donates to NGO. Meanwhile form in contact us webpage collects data from user who submitted feedback to NGO.

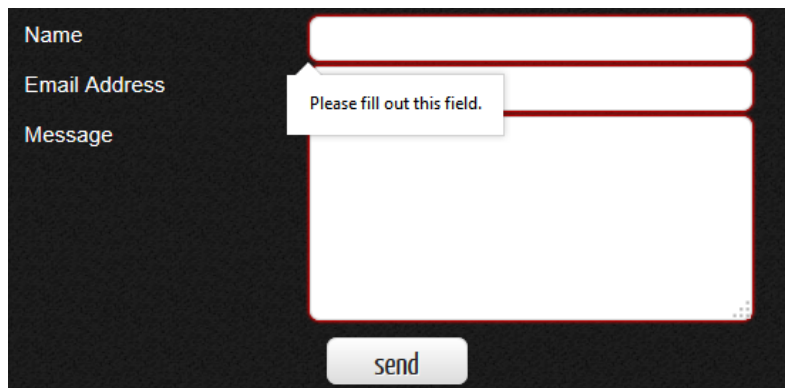
A contact form on a dark background. It has three input fields: 'Name', 'Email Address', and 'Message'. The 'Message' field is a large text area. A red border highlights the 'Name' and 'Email Address' fields, with a tooltip saying 'Please fill out this field.' pointing to the 'Email Address' field. A 'send' button is at the bottom.

Figure 14 Form for collecting data from contact us page

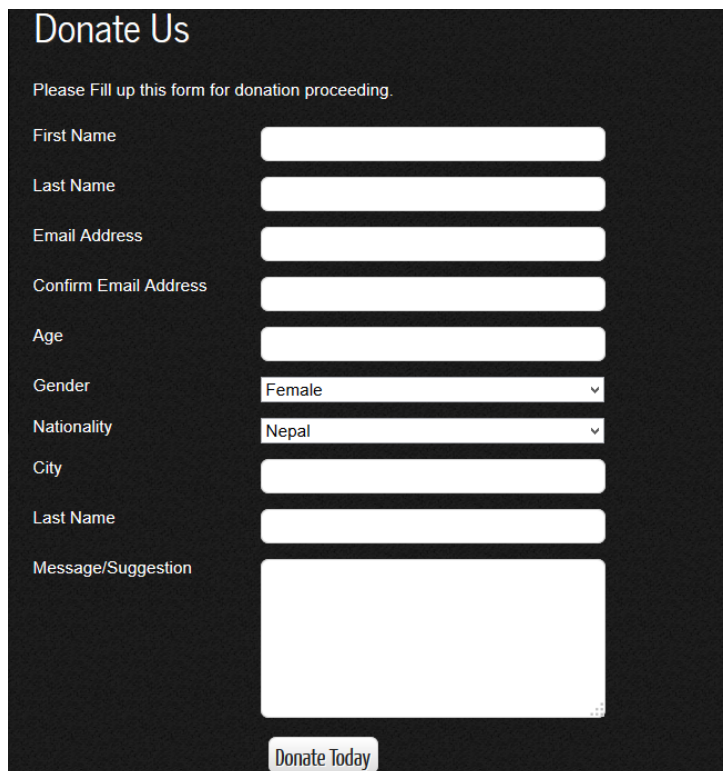
A 'Donate Us' form on a dark background. It has a title 'Donate Us' and a subtitle 'Please Fill up this form for donation proceeding.' Below are several input fields: 'First Name', 'Last Name', 'Email Address', 'Confirm Email Address', 'Age', 'Gender' (with a dropdown menu showing 'Female'), 'Nationality' (with a dropdown menu showing 'Nepal'), 'City', 'Last Name' (repeated), and 'Message/Suggestion' (a large text area). A 'Donate Today' button is at the bottom.

Figure 15 Form for collecting data from donate us page

Web Survey

In modern age of technologies, organizations and companies uses web surveys to collection data about public opinion on certain topic such as products, services, news etc. Basically, web surveys are survey on certain topics and are employed in web rather than in paper. Unlike normal surveys, programming, designing knowledge is required to run these surveys. There are many benefits of using web surveys to collect data. Smartsurveys (n.d.) listed some major benefits web surveys:

1. Quicker
2. Cheaper
3. Accurate
4. Easier and quicker to analyze data
5. Easier for customers to submit data
6. Beneficial for research
7. Flexible

What is your age?

Not Say!
Under 5
5
6
7

Not Say!	309.00	146.00	163.00	284.00	6.00	168.00	91.00	50.00
	3.06%	2.35%	4.19%	3.34%	0.89%	4.54%	2.35%	1.97%

Note 1: We don't have much confidence in the totals for ages 5-7 because it appears that some respondents chose these responses rather than scroll through the list to their correct age.

What is your age?

- ☐ Under 5 ☐ 46 - 50
☐ 5 - 10 ☐ 51 - 55
☐ 11 - 15 ☐ 56 - 60
☐ 16 - 20 ☐ 61 - 65
☐ 21 - 25 ☐ 66 - 70
☐ 26 - 30 ☐ 71 - 75
☐ 31 - 35 ☐ 76 - 80
☐ 36 - 40 ☐ 81 - 85
☐ 41 - 45 ☐ Over 85
☐ Rather not say!

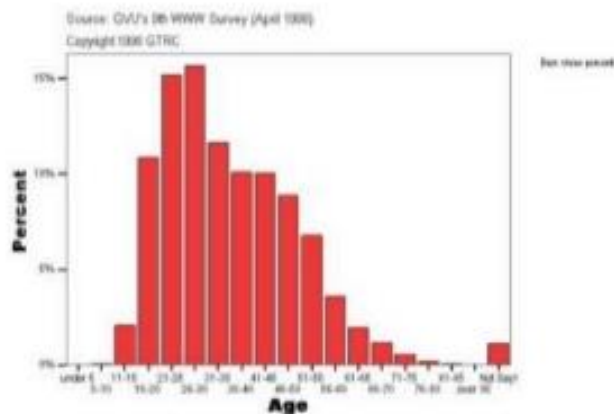


Figure 16 Example of web surveys

Since potential of collecting data through web is quite wide and companies often requires to understand public opinion on different products and services, implementation of web surveys can be useful. Web surveys have made data analysis more useful and also made data collection cheaper.

Maintenance

Web Hosting (Uploading)

Web hosting is process of uploading website files such as web pages, audio, images, videos to very high-end computers connected to network also known as web servers. When domain name of website is typed in browser it searches for that site in web and connects to web server holding files form that site. And then it transfers information that we can see in our computer. Without hosting website cannot be found in web. These web servers provides continues hosting service and never shuts down. There are two type of web hosting platform based on Operating system environments.

Windows web hosting

This type of web hosting is basically used for hosting .net services. If website relies on Microsoft technologies such as ASP.net, MS Access, MSSQL etc. windows based web hosting is used. It is necessary to use this type of hosting is website has to execute dot net codes or other technologies mentioned above.

UNIX (OS such as Linux of FreeBSD) web hosting

Another type of web hosting is UNIX based hosting. If website has to execute PHP scripts or relies on technologies such as MySQL, wordpress, blogging, perl etc. Unix based web hosting is used. According to about dot com (n.d.) though it is not impossible to run these services in windows based hosting, use of windows based system may create problems and things may not work in manner it should.

It is not important which system you choose if website is static and does not execute any server side scripts such as php, dot net etc. Web site for Children education foundation is hosted in UNIX based hosting system. So that later it can be upgraded to dynamic website using PHP and MySQL as database.

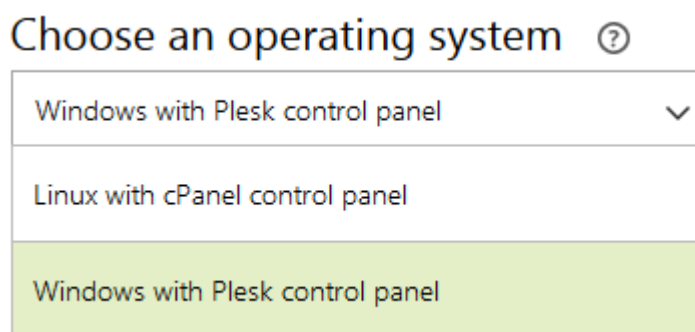


Figure 17 choosing web hosting platform while buying hosting service

Customize Your Web Hosting plan

Pick your plan type

Deluxe - Host multiple websites

▼

Select your term

Lock in your savings even longer!

12 months \$4.49/mo On Sale

▼

Choose an operating system ?

Windows with Plesk control panel

▼

Secure your site, customer data and increase Google search rankings. ?

☐ Add an SSL Certificate - \$69.99/yr

Protect your site from hackers & malware ?

☐ Add SiteLock Website Security - \$17.88/yr

Continue >

Figure 18 Buying web hosting service in Godaddy.com

Back up

When website is hosted in web it is necessary to take required precaution. Sometimes if something goes wrong it is required to host older files with not issues. For that backing up of website is done. When problem arise, backup copy is restored. But for that, backup of working site's files are necessary. Some web hosting allows creating manual back up while some makes automated backup before publishing the site. It is must to back up the system before making and changes in website. Here are some steps to backup or restore website (goddady, n.d):

To Backup website

1. Login to your Website account (C PANEL). (www.[websitedomain].com/cpanel)
2. **Manage** menu → **Backup/Restore**.
3. The Backup and Restore page displays.
4. **Enter a name for this copy** → Specify backup name

5. Click **Save website**.

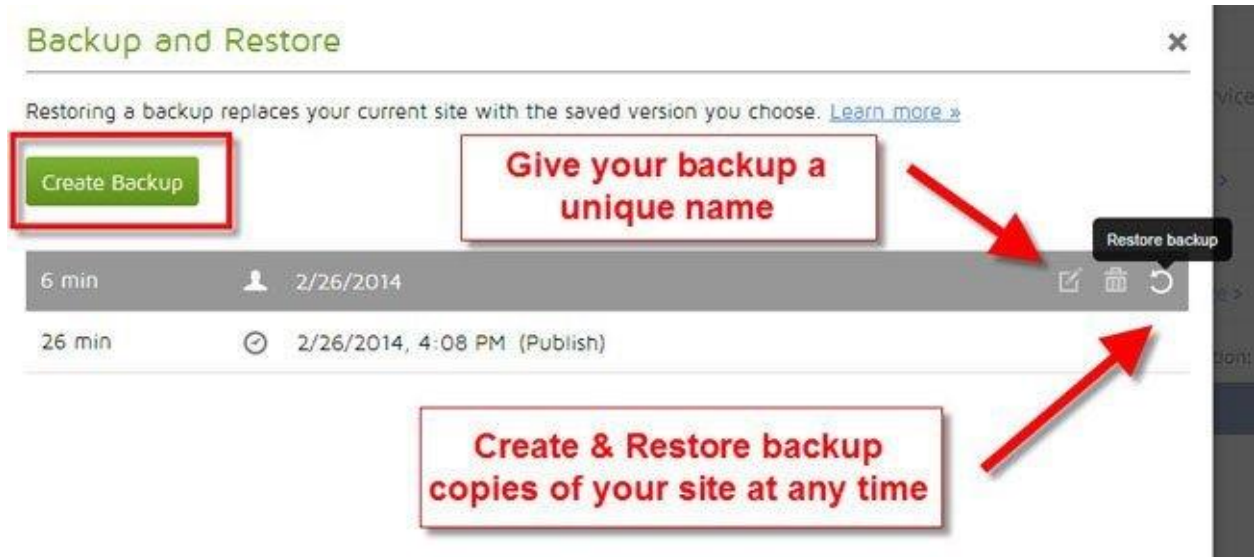


Figure 19 Example for backing up website.

To Restore a Backup Copy of Your website

1. Log in to your Website account.
2. **Manage menu** → **Backup/Restore**.
3. **Restore a Previous Project** → **Restore**
4. Click **OK. Done**



Figure 20 C Panel Login Page

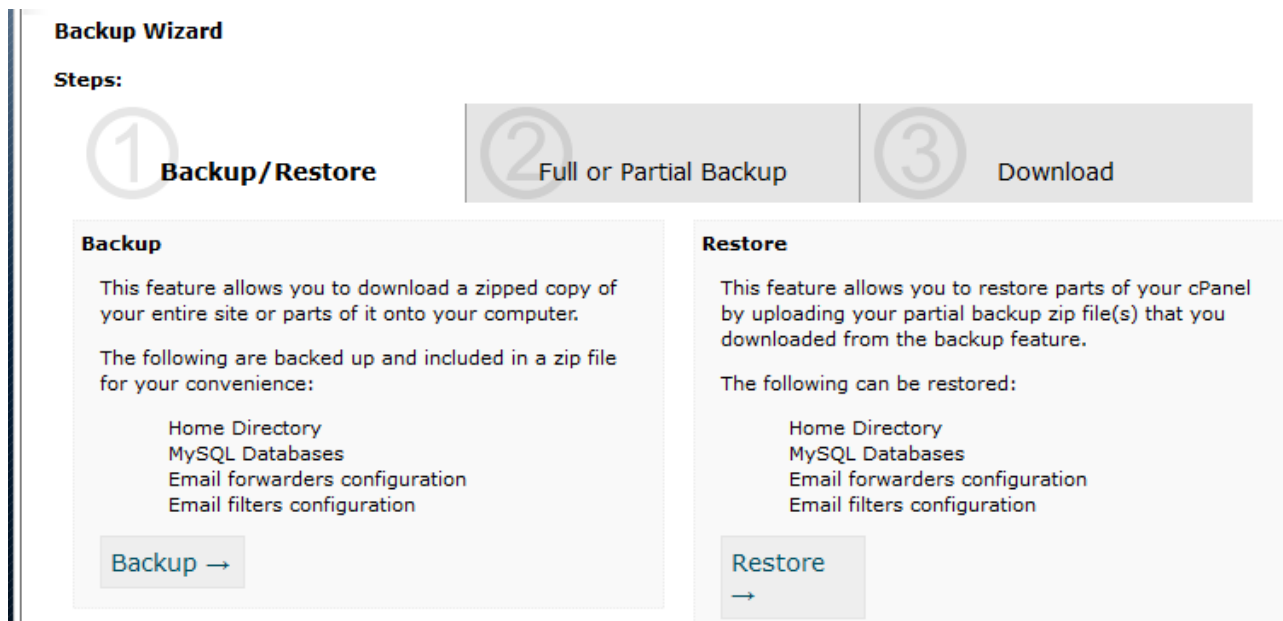


Figure 21 Backup and restore in Hostgater.com C panel

Fix Broken Links

According to brokenlinkcheck (n.d.) broken links can be annoying as well as it can damage reputation of whole website. It can lead to lose of customer number and may face problem in attracting new customers. This can also damage overall ranking of the page. Broken link issue arise when a hyperlink cannot lead to valid webpage. Cause of this can be moving webpages, renaming them etc. This is very serious issue and need to be taken seriously to insure the trust of visitors.

Broken links can be found by hyperlink testing, menu testing, from customer feedback or using online broken link checker like brokenlinkcheck.com.

#	Broken link (you can scroll this field left-right)	Page where found	Server response
1	http://imfreee.com/www.gurkhaadventures.com	url src	404

Status

COMPLETED!

Processed 1 web pages, found 1 broken links

Figure 22: Broken link found in a site using online checker

To fix broken link issues follow these steps:

```
<li><a href="news.html">News</a></li>
<li><a href="gallery.html">Gallery</a></li>
```

Figure 23 Hyperlink code in HTML

For example purpose, let's assume here in figure 17 news.html is a broken link.

1. Make sure there is a webpage named news.html in root folder. If it is renamed, rename the page in link too. If page is moved to another folder, give full path to page in link code.
2. Make user case of page name and page name in link matches.

Sometimes broken link issue can occur in image too. Image simply does not display in webpage and show (X) sign. To resolve this issue try similar steps of fixing hyperlinks. In addition to that make sure file extension of image file matches in image link code.

Fix Bugs and errors

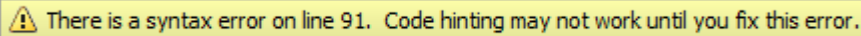
After website is developed whether it is dynamic website or static there can be bugs and errors which need to be addressed. Even if there is no error during design phase it can arise after it is published and tested by its users. These bugs, error forbid the website system from working the way it should work. There are several types of error that exists in dynamic or static website:

- PHP Errors
- Database Errors
- JavaScript Errors
- CSS Errors

As current website is static website hence, there cannot be PHP or Database errors.

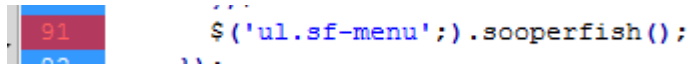
Java script error

If there is error(s) in java script code, in Dreamweaver tool error is displayed with red marking and error message as shown in figure 18 and figure 19 below. To resolve the issue, review the code and make adjustment if required or remove unnecessary code. After resolving the issue no error message is displayed as shown in figure (20). Make sure required java script library is imported and linked with the webpage, Figure (21).



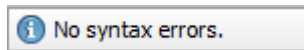
There is a syntax error on line 91. Code hinting may not work until you fix this error.

Figure 24: Error message displayed in java script error.



```
91      $('ul.sf-menu;').sooperfish();
```

Figure 25



No syntax errors.

Figure 26 No error is displayed when error is solved.

```
<script type="text/javascript" src=
"js/jquery.easing-sooper.js"></script>
```

Figure 27: Linking java script library

CSS error

To handle CSS errors follow these steps.

1. Make sure Style sheet is linked with webpage correctly, figure (22).
2. Make sure there is no two class selector or id selector with same name
3. Make sure color, font face; background, boarder size etc. are as according to agreement with client, Figure (23).

```
<link rel="stylesheet" type="text/css" href=
"css/style.css" />
```

Figure 28 Linking CSS file

```
h1, h2, h3 {
    font: normal 140% arial, sans-serif
    margin: 0 0 15px 0;
    padding: 15px 0 5px 0;
    color: #FFF;
}
```

Figure 29

References

- About dot com (n.d.) *Windows versus Linux for Web Page Hosting* Available: http://webdesign.about.com/od/webhosting/a/windows_v_linux.htm Accessed [11/22/2014]
- Brokenlinkcheck (n.d.) *Online Broken Link Checker* Available: www.Brokenlinkcheck.com/ Accessed [11/22/2014]
- Godaddy (n.d.) *Backing up or Restoring Your Website* Available: <https://support.godaddy.com/help/article/2992/backing-up-or-restoring-your-website?locale=en> Accessed [11/22/2014]
- Smartsurveys (n.d.) *10 advantages of online surveys* Available: <https://www.smartsurvey.co.uk/articles/10-advantages-of-online-surveys> Accessed [11/22/2014]