

COMPLIANCE MATRIX of GIGW

1. Government of India Identifiers

- a) Ownership information is displayed on homepage and on all important entry pages of the website with the Emblem/Logo of Associated Government.
- b) Website is registered under 'gov.in' or ' nic.in' domain.
- c) Website provides a prominent link to the 'National Portal' from the Home page.

2. Building Confidence

- a) Website has a Copyright Policy, Hyper Linking Policy, Terms and Conditions statements and Privacy Policy prominently displayed on the homepage.
- b) Mechanism is in place to ensure that there are no 'broken links' (internal as well as external) or 'Page not found' errors.

3. Primary Content

- a) About us :- All information about the department, useful for the citizen and other stakeholders, is present in ' About Us' section and mechanism is in place to keep the information up to date.

- b) Schemes :- The website provides a complete description of the scheme along with the procedure for obtaining the associated benefits. The validity of the scheme has been mentioned.

- c) Services :- The website provides a complete description of the service along with the procedure to apply for/avail the same.
- d) Forms and Acts :- The website provides the complete title of the form and acts. Purpose and Language of the Form (other than English) is mentioned clearly.
- e) Contact Us :- Website has a 'Contact Us' page, linked from the home page and all relevant places in the website. The complete contact details of important functionaries in the Department are given in the 'Contact Us' section.
- f) Presence on the National Portal :- Mechanism is in place to ensure that all the Citizen Services, Forms, Documents and Schemes are registered with the respective repositories of the National Portal.
- g) Feedback :- Feedback is collected through online forms and mechanism is in place to ensure timely response to feedback/queries received through the website.
- h) Help section :- The website has a readily available Help section. Complete information including title, size (playing time for audio/video), format, usage instructions and plug-in to view the file is provided for downloadable material.

i) Screen Reader :- Screen readers are software programs that allow blind or visually impaired users to read the text that is displayed on the computer screen with a speech synthesizer or braille display.

j) Last updated / reviewed date :- Home Page and every important entry page of website displays the last updated / reviewed date.

k) Content Review Policy(CRP) :- Department has a Content Review Policy(CRP) for the website. Clear and simple language has been used throughout the website. The language is free from spelling and grammatical errors. The meaningful reading sequence is preserved in all presentation styles.

4. Design

- A consistent page layout has been maintained throughout the website.
- National identity symbols like Flag, National Emblem etc., are in a proper ratio and color.
- Hindi/ regional language fonts have been tested on popular browsers for any inconsistency (loss of layout).
- Web Pages allow resizing of text without the use of assistive technology.

- Text is readable both in electronic and print format and the page prints correctly on an A4 size paper.
- There is adequate contrast between text and background color.
- Alternate text is provided for non text elements(e.g. images).
- Web pages do not contain any content that flashes for more than three times in a second.
- There is a mechanism to control (stop, pause....) audio that starts automatically.
- Website has either a "search" box or a link to a "search" page from every page of the website.
- Website has an up to date Site Map that is linked to the Home Page as well as to all important entry pages of the website.

5) Development

- Website uses Cascading Style sheets to control layouts/styles.
- Web pages are usable even when scripts, applets etc. are turned off.
- Labels have been provided when content requires input from the users.

- All input errors are flashed in text.
- Focus is not trapped in any component while navigating through keyboard only.
- Metadata for pages like title, keywords, description and language is appropriately included.
- The websites have been tested on multiple browsers.
- Websites has cleared Security Audit by certificate agency and has a Security Policy.

6) Website Hosting

- Websites are accessible to the intended audience in an efficient and secure manner on 24 x 7 basis.
- The hosting service provided performs regular backup of the web site.
- Website Hosting Provider provides Helpdesk & Technical support on 24x7x 365 basis.

For more details visit <http://guidelines.gov.in>.

What is responsive web design?

Responsive Web design is the approach that suggests that design and development should respond to the user's behavior and environment based on screen size, platform and orientation. The practice consists of a mix of flexible grids and layouts, images and an intelligent use of CSS and HTML to resize, hide, shrink, enlarge, or move the content to make it look good on any screen (desktops, tablets, and phones).

Bootstrap :- Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web. Bootstrap makes front-end web development faster and easier. It's made for folks of all skill levels, devices of all shapes, and projects of all sizes. Bootstrap easily and efficiently scales your websites and applications with a single code base, from phones to tablets to desktops with CSS media queries.

Important Points :-

- 1) Use percentage (%) value instead of fixed value (px) to define size of any elements of the website.
- 2) Use alternate text for any media elements like images, videos, hyperlinks etc.
- 3) Hide unnecessary images from mobile view to compress the size of the website for mobiles.

- 4) Use Cascading Style Sheets (CSS) defined in Style Sheets instead of define inline Style.
- 5) Upload different size/resolution of images of header to adjust it on different size devices.

For example- More than 1380 pixel width for HD devices
 1024 pixel width for Standard devices
 480 pixel width for Mobile devices.

HTML 5:-

- a) Simplified and Clear Syntax:-** The syntax in HTML5 is extremely clear and simple as compared to HTML4. One example of this is the DOCTYPE element. In HTML4 the DOCTYPE declaration was too messy and lengthy and used to refer an external source. However in HTML5 DOCTYPE element has been made extremely simple. For instance a mere is enough to specify the document type.
- b) Multimedia Elements:-** HTML5 contains built in support for integrated multimedia files into web page via video and audio tags. Previously, in HTML4, the multimedia content was integrated in web pages via third party plugins such as Silverlight and flash.

c) Accessing User Geographical location:- Previously in HTML4, it was an extremely cumbersome task to get the geographical locations of the visitors visiting the site. It was even difficult when the website was accessed through mobile devices. On the other hand, in HTML5 is extremely easy to get the user location. HTML5's JS GeoLocation can be leveraged to identify the location of the user accessing the website.

d) Client Side storage:- In HTML4, in order to store important data on client side, browser's cache was used. However, that cache is limited and doesn't support relational storage mechanism. In HTML5, this issue has been addressed via Web SQL database and application cache that can be access via HTML5's JavaScript interface.

e) Client Server Communication:- In HTML4 the communication between the client and server was done through streaming and long polling, since there are no web sockets available in HTML4. On the contrary, HTML5 contains web sockets that allow full duplex communication between clients and servers.

f) Browser Compatibility:- As aforementioned, HTML4 is an established standard for developing browser applications and has been in use for more than 10 years. For this reason, HTML4 is compatible with almost all web-browsers. On the other hand, HTML5 is still in the process of evolution and the currently available tags are being modified and also new tags are being added. Therefore, HTML5 lags behind HTML4 in terms of compatibility with the browsers.

What is Globalization and Localization?

Globalization is the process of designing the application in such a way that it can be used by users from across the globe (multiple cultures).

Localization, on the other hand, is the process of customization to make our application behave as per the current culture and locale. These two things go together.

To do globalization we need to use Resource Files.

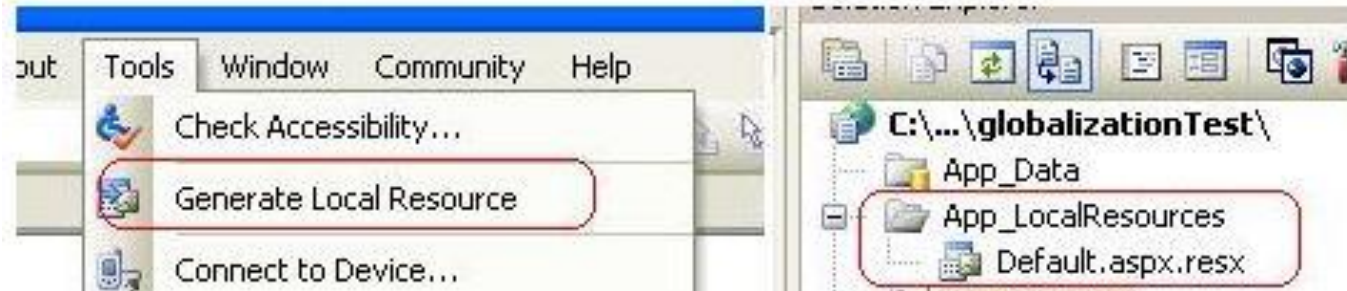
Example

Step1) Add Resource Files to our project:

- Right-click on the Root Folder Add New Item.
- Select Resource File from the above Templates. Name it "Resource.resx".
- You need other Resource Files for storing data depending on the Culture. Add another file with the following names of each resource, such as "Resource.hi-IN.resx" else you can give a different name but after the (Dot) because they are sub-files of "Resource.resx".

For English you can add "Resource.en-GB.resx"

For Hindi you can add "Resource.hi-IN.resx"



Step 2) Add some data in these files;

a) Open "Resource.resx"

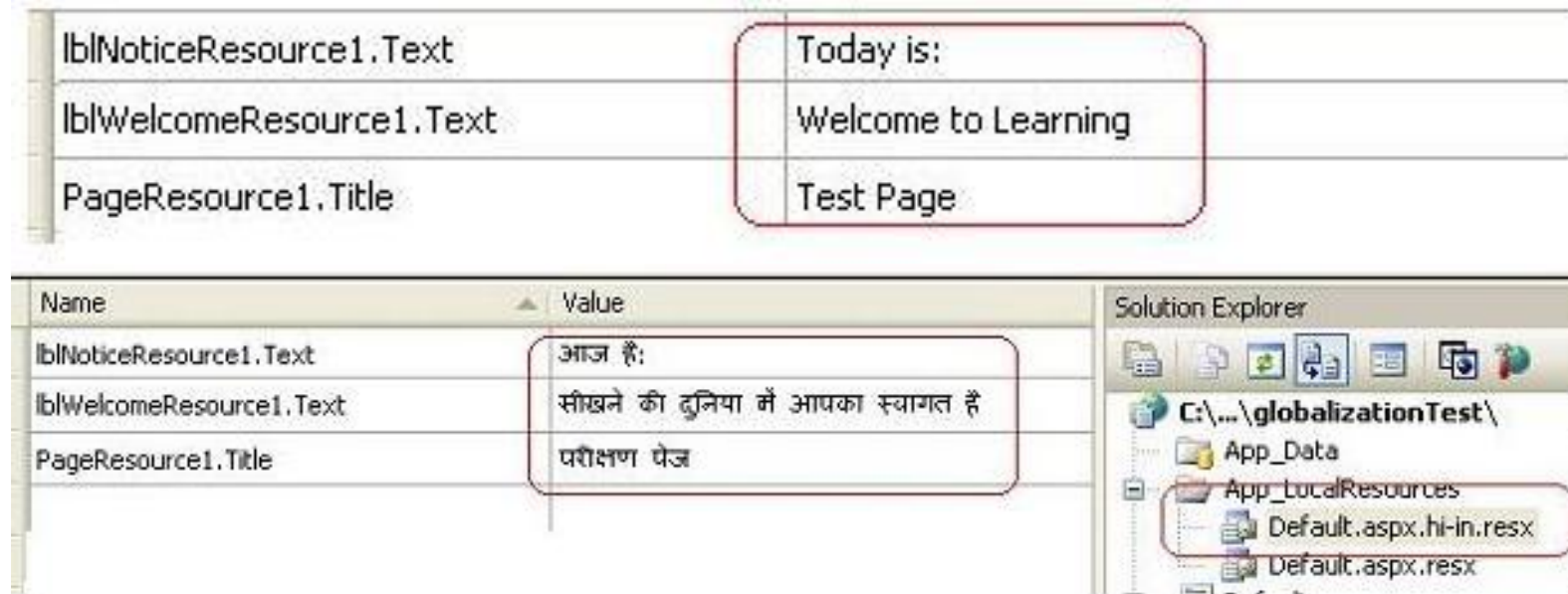
Add a Name-Value pair Value column blank. Save And Close Resource.resx.

b) Open " Resource.en-GB.resx "

Add a Name-Value pair Value column blank. Save And Close Resource.resx.

c) Open Default.aspx.hi-IN.resx

Add a Name-Value pair Value column blank. Save And Close Resource.resx.



Step 3) For accessing the resource file you need to add syntax like this:

```
<asp:Label ID="lblresdisplay" FontSize="Large" runat="server" Text= "<%=Resources: Resource, lblNoticeResource1%>" > </asp:Label>
```

In this syntax we can call the key name which is stored in resource files on the place of simple text.

Step 3) To accomplish this, what we need to do is to override the Initialize Culture function and set the UI Culture to the user selected language.

```
protected override void InitializeCulture()
{
    base.InitializeCulture();
    System.Threading.Thread.CurrentThread.CurrentCulture
    = new System.Globalization.CultureInfo("hi-IN");
    System.Threading.Thread.CurrentThread.CurrentUICulture
    = new System.Globalization.CultureInfo(Session["Culture"].ToString());
}
```

What is Themes and Skins?

- A theme decides the look and feel of the website. It is a collection of files that define the looks of a page. It can include skin files, CSS files & images.
- We define themes in a special App_Themes folder.
- Inside this folder is one or more subfolders named Theme1, Theme2 etc. that define the actual themes.
- The theme property is applied late in the page's life cycle, effectively overriding any customization you may have for individual controls on your page.

How to apply themes

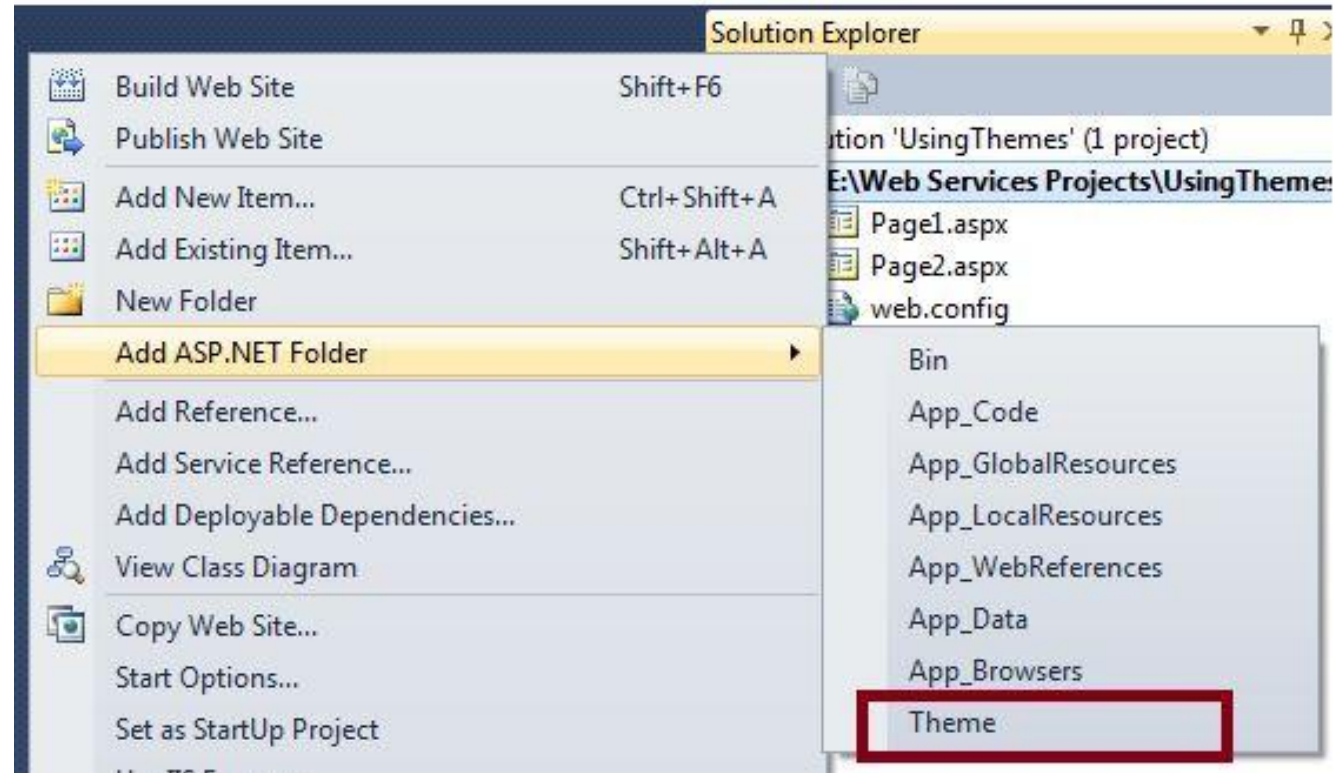
There are 2 different options to apply themes to our website:

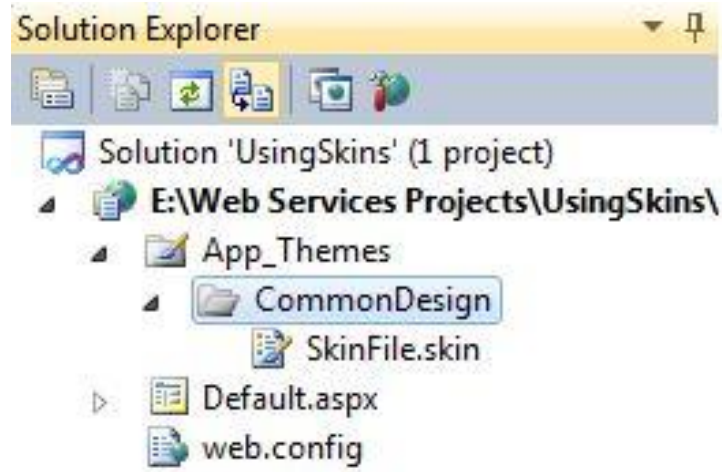
- 1) Setting the theme at the page level: the Theme attribute is added to the page directive of the page.

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs" Inherits="Default" Theme="Theme1"%>
```

2) Setting the theme programmatically at runtime: here the theme is set at runtime through coding. It should be applied earlier in the page's life cycle ie. Page_PreInit event should be handled for setting the theme. The better option is to apply this to the Base page class of the site as every page in the site inherits from this class.

```
Page.Theme = Theme1;
```





Uses of Themes

Since themes can contain CSS files, images and skins, you can change colors, fonts, positioning and images simply by applying the desired themes.

You can have as many themes as you want and you can switch between them by setting a single attribute in the web.config file or an individual aspx page. Also you can switch between themes programmatically.

Setting the themes programmatically, you are offering your users a quick and easy way to change the page to their likings.

Themes allow you to improve the usability of your site by giving users with vision problems the option to select a high contrast theme with a large font size.

Cookie management for Themes

An HTTP cookie (also called web cookie, Internet cookie, browser cookie or simply cookie) is a small piece of data sent from a website and stored on the user's computer by the user's web browser while the user is browsing. Cookies were designed to be a reliable mechanism for websites to remember stateful information (such as items added in the shopping cart in an online store) or to record the user's browsing activity (including clicking particular buttons, logging in, or recording which pages were visited in the past).

We use this technique to store users configuration data like Themes. Later we use this data to set default theme of the website. **Example:**

```
Protected Sub Page_PreInit(sender As Object, e As EventArgs) Handles Me.PreInit
    Dim cookie As HttpCookie = Request.Cookies("themeSelected")
    If cookie IsNot Nothing Then
        Page.Theme = cookie.Value.ToString()
    Else
        Page.Theme = "Red"
        CreateCookie("Red")
    End If
End Sub
```



Font Size management:

There are multiple monitor dimensions and resolutions, thus sometimes users find it difficult to read the information and hence they can use this feature to increase or decrease font size of the text for improved readability.

Here I have shown how to change i.e. increase or decrease the font size of text of whole page or particular section or part of page using JavaScript or jQuery. **Example:**

```
<script type="text/javascript">
  $(function () {
    $(".font-button").bind("click", function () {
      var size = parseInt($('body').css("font-size"));
      if ($(this).hasClass("plus")) {
        size = size + 2;
      } else {
        size = size - 2;
        if (size <= 10) {
          size = 10; } }
      $('body').css("font-size", size); }); });
</script>
```

