

## Resource Files

Resource files are simple XML files that hold the localized unicode strings for different cultures and locale. Because this content will vary from language to language, we will have resource files for every culture. Resource files have a `.resx` extension and each `.resx` file has a key-value pair (name and value fields, just like a dictionary).

There are two types of resource files we can have in our application—**global resource** files and **local resource** files.

## Global Versus Local Resources

Resource files can be saved in either the `App_GlobalResources` folder or the `App_LocalResources` folders in your project. The resource files under `App_LocalResources` are used for storing information that is not repeated across the pages (page-specific content), whereas `App_GlobalResources` are used for storing site-wide content or content that is duplicated on multiple pages.

Before going ahead with the differences between global resources and local resources in detail, let us first see how we can create and add values in both global and local `.resx` files using Visual Studio (VS).

## Creating Global Resources

Here is how we can add a simple value in three different global resource files (one for each culture) using VS. First of all, create a new web site in VS and name it **TestSite**. Then follow the steps below to create a simple demo page to test the localization (you can refer to the source code available on the website and use the sample project already created):

1. Add a Master Page to the project and name it `TestSiteMasterPage.master`.
2. Add a new ASPX page using that Master Page and name it `Default.aspx`.
3. Add two labels, a calendar control, and a textbox control on `Default.aspx`.
4. Add a new User Control named `Header.ascx`.
5. Add a drop-down in `Header.ascx` named `ddlLanguage`.
6. Add four hardcoded values in that drop-down. Here is the code:

```
<asp:DropDownList ID="ddlLanguage" runat="server"
    AutoPostBack="True">
    <asp:ListItem Value="-1">Select a language</asp:ListItem>
    <asp:ListItem Value="0">Hindi</asp:ListItem>
    <asp:ListItem Value="1">US English</asp:ListItem>
    <asp:ListItem Value="2">GB English</asp:ListItem>
    <asp:ListItem Value="3">French</asp:ListItem>
</asp:DropDownList>
```

The following are the steps to create global resource files:

1. Right-click the website in VS, and select **Add New Item file**.
2. In the **Add New Item** dialog box, select **Resource File** and name it `TestSiteResources.resx` (you can actually use any name you like).
3. When you click the **Add** button, VS will ask you if you want to put this file under the `App_GlobalResources` folder. Select **Yes**.
4. Then, open the resource file in the VS editor (by double-clicking it).
5. Enter "Banner" in the **Name** field, and "Test Website for Localization" in the **Value** field. This resource file is the default for American English.
6. Add another resource file, and name it `TestSiteResources.fr-FR.resx`. This file is for French language strings.
7. Add "Banner" in the **Name** field, and "Examinez le site Web pour le comportement de localisation" in the **Value** field.
8. If you want to add Canadian French resources, then you need to create another resource file by the name of `TestSiteResources.fr-CA.resx`. The middle part of this name defines the locale, which should be the same as specified by the `UICulture` property.

In the same way, you can add more resource key values to the resource file for the controls we have on `Default.aspx` and `Header.ascx` in our website. Here is how the global resource files would look in VS **Solution Explorer**:

