Project Demo: Presentastic

This demo assumes that you have ColdFusion 9 and ColdFusion Builder installed.

In this exercise, we will see how you can quickly and easily create an application that will allow users to upload PowerPoint presentations that are then converted and made available in PDF format, HTML format, and Flash Player-based Adobe Acrobat Connect format.

Some of the functionality of this example requires that OpenOffice be installed on your ColdFusion server. OpenOffice is free software and is easy to install; to download it, visit http://download.openoffice.org. When you have installed OpenOffice, you need to configure ColdFusion to use OpenOffice by logging into your ColdFusion Administrator, navigating to Server Settings > Document, and specifying the OpenOffice directory. Then restart the ColdFusion server and you'll be set!

Create a new project

Start ColdFusion Builder
Select from menu File -> New -> ColdFusion Project
Project Name = "ProjectDemo1"
Project Location = Under your ColdFusion web root

Create a ColdFusion template named index.cfm

Right Click "ProjectDemo1" project on the left side
Select from Menu, New -> ColdFusion Page
Name = "index"

First we need to create a user-defined function (UDF) to set the file path separator for our chosen operating system.

Next we need to create some variables to hold information about the file and web paths where our presentations will be. Add this code to the top of the file:

```
<!---Set up--->
<cfset Variables.thisDir = replace(getDirectoryFromPath(GetCurrentTemplatePath()), "\", 
"/", "all")>
<cfset Variables.presoSubDir = "presentations">
<cfset Variables.pptSubDir = Variables.presoSubDir & "/" & "ppt" & "/">
<cfset Variables.thumbSubDir = Variables.presoSubDir & "/" & "thumb" & "/">
<cfset Variables.htmlSubDir = Variables.presoSubDir & "/" & "html" & "/">
<cfset Variables.connectSubDir = Variables.presoSubDir & "/" & "connect" & "/">
<cfset Variables.pdfSubDir = Variables.presoSubDir & "/" & "pdf" & "/">
<cfset Variables.pptDir = Variables.thisDir & Variables.pptSubDir>
<cfset Variables.thumbDir = Variables.thisDir & Variables.thumbSubDir>
<cfset Variables.htmlDir = Variables.thisDir & Variables.htmlSubDir>
<cfset Variables.connectDir = Variables.thisDir & Variables.connectSubDir>
<cfset Variables.pdfDir = Variables.thisDir & Variables.pdfSubDir>
```

The next section will be code that will handle presentations when they are uploaded and do all the conversions we want to do. But because we only want this code to run when we have uploaded a PowerPoint file, we need a conditional statement. Add this code:

```
<cfif isDefined("Form.submitButton") AND isDefined("Form.applicationFile")>
      <!---Handle uploaded presentations and do conversions here--->
</cfif>
```

This code checks to see if the upload form has been filled out and submitted. We'll add the code to create the upload form a little later.

Now we can add the code to handle uploaded presentations and do all the conversions we want to do.

Inside the body of the conditional you just created, immediately beneath the comment, add the following code:

```
<!---Create directory for PPT files--->
<cfif NOT directoryExists(Variables.pptDir)>
      <cfdirectory action="create" directory="#Variables.pptDir#">
</cfif>

<!---Upload file--->
<cffile action="upload"
      fileField="Form.applicationFile"
      destination="#Variables.pptDir#"
      nameConflict="overwrite"
      accept="application/vnd.ms-powerpoint">
```

This code will check to see if the directory for uploaded PowerPoint files exists and, if it does not, it will create it. Then it will upload the file and will put it in the directory.

Staying inside the body of the conditional, next add this code:

```
<!---Create directory for HTML version of PPT file--->
<cfif NOT directoryExists(Variables.htmlDir & cffile.ClientFileName)>
      <cfdirectory action="create"
            directory="#Variables.htmlDir##cffile.ClientFileName#">
</cfif>

<!---Create HTML version of PPT file--->
<cfpresentation format="html"
      directory="#Variables.htmlDir##cffile.ClientFileName#"
      overwrite="true">

      <cfpresentationslide src="#cffile.ServerDirectory#\#cffile.ClientFile#" />
</cfpresentation>
```

This code will check to see if the directory for the HTML version of the presentation exists and, if it does not, it will create it. Then it will create the HTML version of the presentation from the PowerPoint presentation and will put it in the directory.

Staying inside the body of the conditional, next add this code:

```
<!---Create directory for Connect version of PPT file--->
<cfif NOT directoryExists(Variables.connectDir & cffile.ClientFileName)>
      <cfdirectory action="create"
            directory="#Variables.connectDir##cffile.ClientFileName#">
</cfif>

<!---Create Connect version of PPT file--->
<cfpresentation title="#cffile.ClientFileName#"
      directory="#Variables.connectDir##cffile.ClientFileName#"
      overwrite="true">

      <cfpresentationslide src="#cffile.ServerDirectory#\#cffile.ClientFile#" />
</cfpresentation>
```

This code will check to see if the directory for the Flash-Player-based Adobe Acrobat Connect version of the presentation exists and, if it does not, it will create it. Then it will create the Adobe Acrobat Connection version of the presentation from the PowerPoint presentation and will put it in the directory.

Staying inside the body of the conditional, next add this code:

```
      <!---Create PDF version of PPT file--->
      <cfdocument format="pdf"
            filename="#Variables.pdfDir##cffile.ClientFileName#.pdf"
            srcfile="#Variables.pptDir##cffile.ClientFile#"
            overwrite="true"  />
```

This code will create the PDF version of the presentation from the PowerPoint presentation and will put it in the directory for the PDF files.

Now we'll create one more file; staying inside the body of the conditional, next add this code:

```
      <!---Create thumbnail version of PDF file--->
      <cfpdf action="thumbnail"
            source="#Variables.pdfDir##cffile.ClientFileName#.pdf"
            destination="#Variables.thumbDir#"
            scale="20" overwrite="true" pages="1">
```

This code will create a thumbnail of the first page of the presentation from the PDF version of the presentation and will put it in the directory.

And for our final task inside the body of the conditional, let's redirect back to the page so that we don't have any issues using the browser's Back button when we're browsing around the files; add this code:

```
      <!---Redirect back to this page as a GET instead of a POST--->
      <cflocation url="#GetFileFromPath(CGI.Script_Name)#" addtoken="no">
```

Before we add our display code, we need to gather info on our available presentations; add this code after the closing tag of the conditional:

```
<!---Get a list of all presentations for output--->
<cfdirectory action="list"
      directory="#Variables.htmlDir#"
      name="Variables.presentationsQuery" type="dir">
```

Now we have a recordset with data about our available presentations in `Variables.presentationsQuery`.

Let's now add our HTML "skeleton":

```
<html>
<head>
<title>Presentastic</title>
</head>
<body>
<!---Display goes here--->
</body>
</html>
```

Now's let's build out the display code; add the following in the body tag of the HTML:

```
<h2>Welcome to Presentastic!</h2>

<form name="applicationForm"
      action="<cfoutput>#GetFileFromPath(CGI.Script_Name)#</cfoutput>"
      method="post" enctype="multipart/form-data">

      Upload a presentation:
      <input type="file" name="applicationFile">
      <input type="submit" name="submitButton" value="Submit">
</form>
```

This adds in the form to upload PowerPoint presentations.

Finally, staying inside the body tag of the HTML, let's add in the code to display and link to the available presentations:

```
<table>
      <tr>

      <cfoutput query="Variables.presentationsQuery">
      <cfif NOT Variables.presentationsQuery.CurrentRow MOD 5>
            </tr>
            <tr>
      </cfif>

      <td>
      <table>
            <tr>
            <td>
            <img
src="#Variables.thumbSubDir##Variables.presentationsQuery.Name#_Page_1.jpg" border="1">
            </td>
            </tr>
            <tr>
            <td align="center">
            <a
href="#Variables.htmlWebDir##Variables.presentationsQuery.Name#/index.html">HTML</a> |
            <a
href="#Variables.connectWebDir##Variables.presentationsQuery.Name#/index.htm">Connect</a>
            </td>
            </tr>
            <tr>
            <td align="center">
            <a
href="#Variables.pdfWebDir##Variables.presentationsQuery.Name#.pdf">PDF</a> |
            <a
href="#Variables.pptWebDir##Variables.presentationsQuery.Name#.ppt">PowerPoint</a>
            </td>
            </tr>
      </table>
      </td>
      </cfoutput>

      </tr>
</table>
```

In this code we loop over the presentations recordset and for each one presentation we display the thumbnail of the first page and provide links to each of the available presentation formats.

Now we can run the application. Browse to index.cfm. Using the form on the page, upload a PowerPoint file with the ppt extension. When the page refreshes, you will see a thumbnail image of the first page of the PowerPoint file and beneath it will be a link to view the online HTML version of the presentation, a link to view the online Adobe Acrobat Connect version of the presentation, a link to view/download the PDF version of the presentation, and a link to view/download the original PowerPoint version of the presentation.

It's just that simple! With a few simple lines of code we have created an application that will allow users to upload PowerPoint presentations that are then converted and made available in PDF format, HTML format, and Flash Player-based Adobe Acrobat Connect format. With a little more standard HTML, we could update the user interface so that the display of the presentations allows users to select multiple of those presentations which we could then bring together into a single PDF file of a special type called a PDF Portfolio. The code for creating a PDF portfolio is simple and would look something like this:

```
<cfpdf action="merge" destination="myPresoPortfolio.pdf"
      overwrite="yes" package="true">

      <cfloop index="Variables.loopIndex" list="#Variables.selectedPresos#">
            <cfpdfparam source="#Variables.loopIndex#">
      </cfloop>
</cfpdf>
```

We'll leave the HTML enhancements and the creation of the value of `Variables.selectedPresos` as an exercise for the user.