

May 10, 2015

# Fundamentals of Website Development (CSCI E-12) Final Project

## Develop a Personal Portfolio Website

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May 10, 2015



Sunset - Photograph taken by Dania on 9 Miles Beach, Grand Cayman, March, 2015.

## Introduction: Goals and Purpose

In my final project proposal I have proposed Personal Portfolio Website as my final project where the goal was to showcase my sister's art and photography creativity in a three-page navigation. The website will include most of her projects and skills as well as her biography and interests.

I have accomplished this objective by mainly designing and developing a portfolio website to interface with her viewers. I have applied as much what I've learned from the Fundamentals of Website Development (CSCI E-12) course as possible where HTML5, CSS, JavaScript, jquery, Ajax, multimedia functionalities, and co-ordinate content with those functionalities to produce a robust and user-friendly website.

### Target audiences

As defined in my previous proposal, and after implementing the real website knowing that I have successfully accomplished my purpose and goal having a user friendly, robust, rich with gallery and entertaining website, I can verify here that Dania's audience are:

#### Primary:

1. Architects and Designers, who have similar interests (whether it's a hobby or work) as Dania's, of both genders, all ages.
2. High profile customers, of all genders and ages, looking for photos taken in a specific event, buy some of Dania's unique art pieces, etc.
3. Potential Employers, where some art businesses might want to have Dania join their team
4. Art collectors, who are in love with art, can be in all genders and ages, retired people or youth.
5. Future Competitors

#### Secondary:

1. Fans, Friends & Family

## Description and Implementation

This report is an amendment of what has been provided in the previous proposal. While going through details of my mission and vision, I believe I have maintained what I envisioned successfully. Keeping in mind that there are always chances for improvements when time permits.

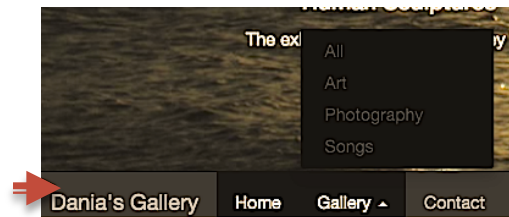
In this section, I will go through details of the purpose of each area of the website, what I have achieved, what could be better and my next steps.

### Revision of my envisioned mission:

Item	Mission	Comments
1	Home: welcome audience, provide updated news, etc. URL: <a href="http://cscie12students.dce.harvard.edu/~fkhalil">http://cscie12students.dce.harvard.edu/~fkhalil</a>	<b>Accomplished</b> My Home Page is simple but very informative and eye catcher. Why? 1. Navigation: Very simple navigation and clear font at the bottom of the page with a submenu for the gallery that expands upwards

/CSCIE12/Final\_Project/FinalProject/home.php

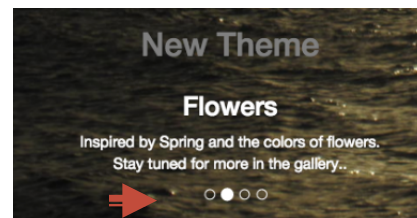
2. Easy Access: It's easy to navigate throughout the pages via a fixed navigation bar that contains the navigation as well as a main title as a hyperlinks that takes the viewer to home page by clicking on it. This way I have accomplished a user friendly and easy to navigate website from one page/section to another. Hence, I can describe my navigation as bidirectional.



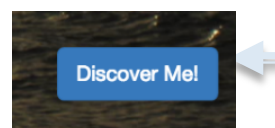
3. Audio player: Music loads automatically when the page loads, with an audio control pad that is universal and easy to use. This audio tool bar is fixed on all pages. Knowing that there are songs gallery, I have implemented a jquery script that would trigger a "pause" when a user clicks on the song to play from the gallery, and when the user clicks on a regular picture another trigger would fire to play again.



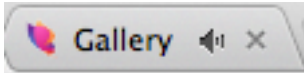
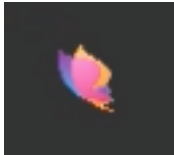



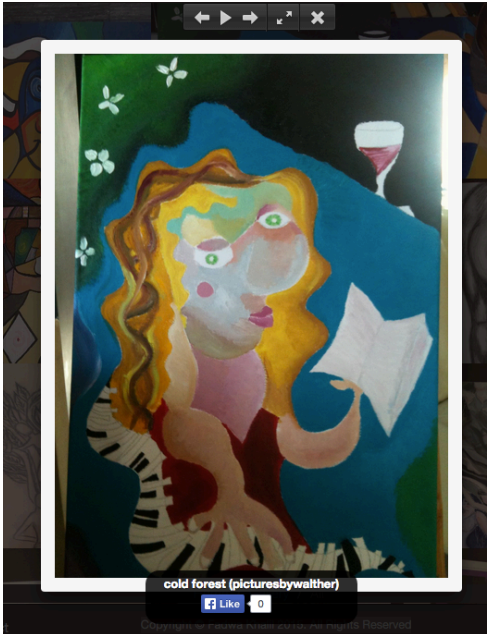
4. News update: Updated news in a carousal form with indicators to access it.






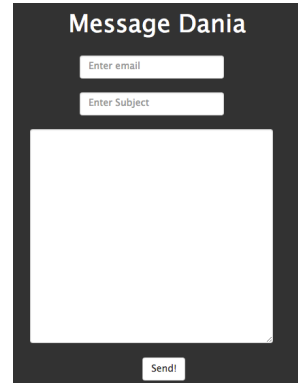
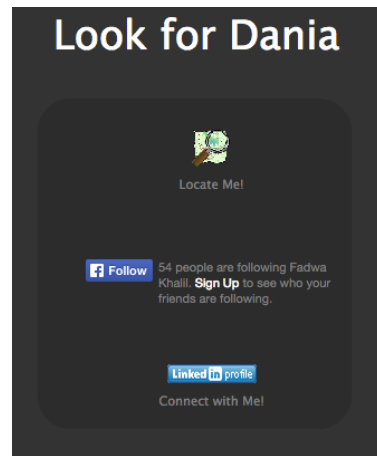
5. Theme and Motto: Animation of the boat and the bar at the top of the screen with the music gives the viewer the sense of motion and entertainment.
6. I have implemented my website using bootstrap theme and components, with iterations of the design and functionality.
7. Personal Information & skills as "Biography": Her "About" page is clear and concise to avoid any confusion about the function of her website. The well known "about me" is included in the home page in an unconventional way, where a modal pops up by clicking on a "Discover Me" button. This makes the viewer more curious into learning more about Dania.



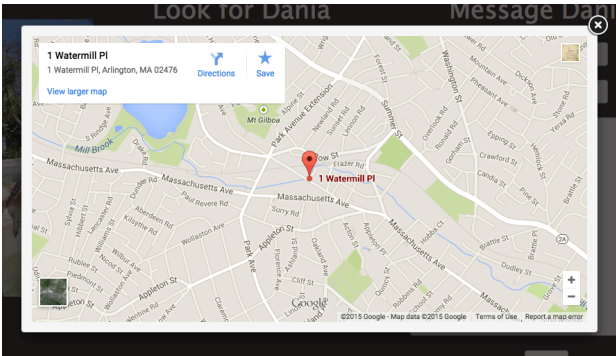
2	Color/Theme brand: The design should embody the personality, character and products and services of your Dania's brand. The color and contrast should make her website stand out.	<p><b>Accomplished</b></p> <p>Dania's Theme is peace, freedom and courage. The boat moving freely in the ocean presents freedom. The red bar indicates courage and the ocean is a symbol of peace of mind.</p>  
3	Add a small icon to the browser tab to make it easy to find when a user has many tabs opened in a browser.	<p><b>Accomplished</b></p> <p>This will make my website standout in crowded favorites lists in browsers and address bars. I will use a tag to my web page code referencing my .ico logo.</p>  <p>I also changed the mouse icon to match the favicon I chose.</p> 
4	<p>Gallery: is divided into three sections: (each section has the items of the gallery as follows:</p> <ul style="list-style-type: none"> <li>○ Photography Gallery</li> <li>○ Art Gallery</li> <li>○ Songs Gallery</li> </ul> <p>URL:  <a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/gallery.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/gallery.php</a> </p>	<p><b>Accomplished</b></p> <p>Each of these sections has a breadcrumb navigation that acts as "Iamhere" for the user. The three sections are:</p> <p><b>Home / Gallery-All</b></p> <p>URL:  <a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/gallery.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/gallery.php</a> </p> <p><b>Home / Gallery-Art</b></p> <p>URL:  <a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/art.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/art.php</a> </p> <p><b>Home / Gallery-Photography</b></p> <p>URL:  <a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/photo.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/photo.php</a> </p> <p><b>Home / Gallery-Songs</b></p> <p>URL:  <a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/song.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/song.php</a> </p>
5	Interactive Galleries and appealing slideshows. - Interactive Gallery	<p><b>Accomplished</b></p> <p>The user can go through the slides using two ways:</p>

	<p>- Transition from one slide to another and the tools to slide images back and forth.</p>	<ol style="list-style-type: none"> <li>1. By scrolling through them and when he/she hovers over each, the image will enlarge for a clearer view.</li> </ol>  <ol style="list-style-type: none"> <li>2. By clicking on one image, and go through the rest of the images by clicking on the sides of the image to either go to the next or the previous one or at the top of the image there is a controller to toggle to the right or left, enlarge the image, close or play slideshow automatically.</li> <li>3. Each user has a unique title floating at the bottom of the image making it perceivable.</li> </ol>  <p>- Right click is disabled to not allow viewers from saving the images as a way to protect copy right.</p>
6	Share Gallery Items by clicking on a share button	<p><b>Accomplished</b></p> <p>A viewer can like images on Facebook, by simply clicking on the Facebook Like icon in the overlay.</p>

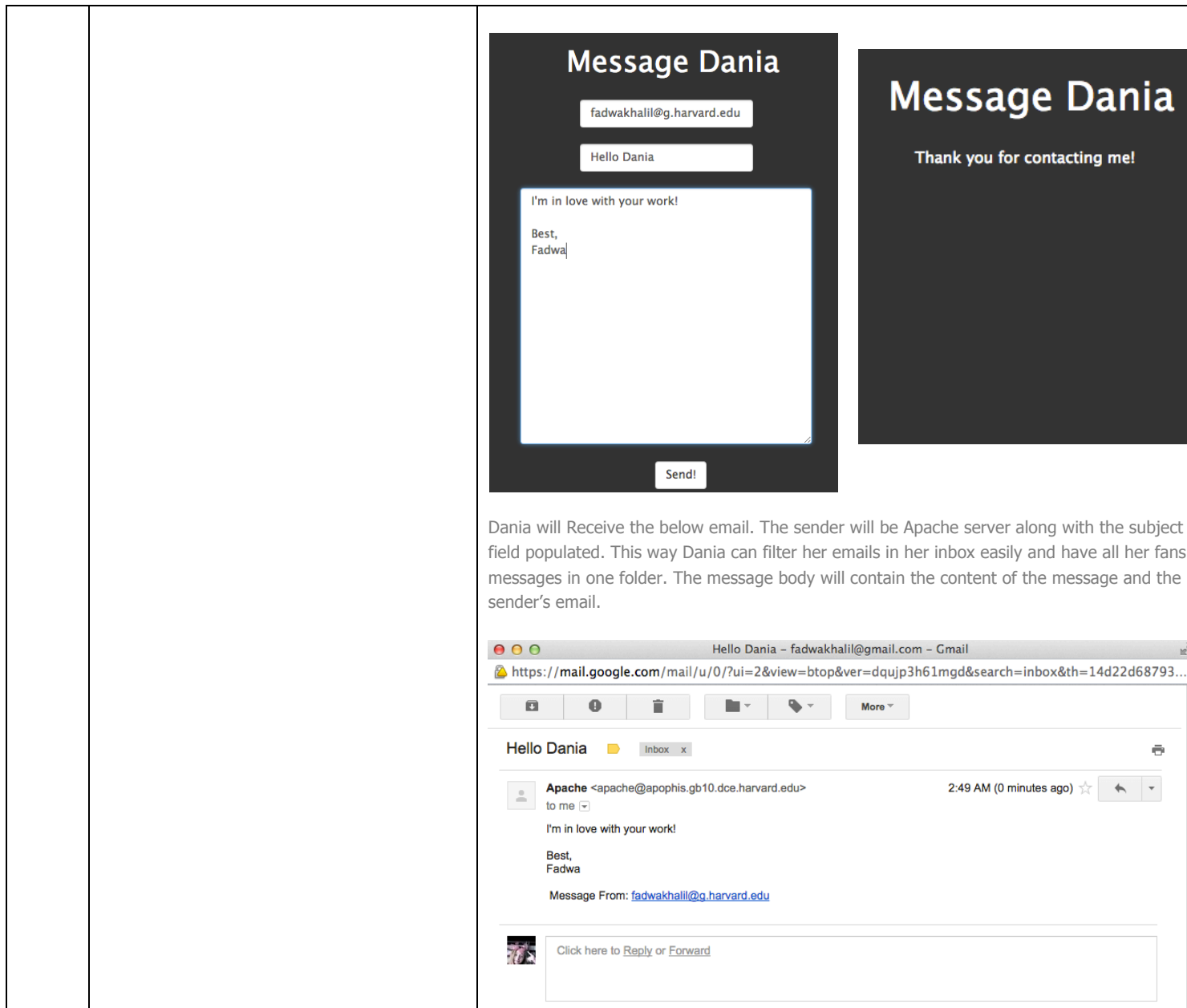
		<div></div> <p>I have uploaded Dania's songs on Youtube, so users/viewers can make use of the share plugin and other already existing functionalities in Youtube.</p> <div></div> <p>Songs slides have a unified image to differentiate them. A title will be shown on top of each slide.</p> <div></div>
7	<ul style="list-style-type: none"><li>- Categorize Galleries and enable the user to search for a specific theme: I</li></ul>	<div><div>Not Accomplished</div><ul style="list-style-type: none"><li>- I didn't find it helpful to add search functionality in the gallery.</li></ul></div>

	<p>will categorize images and use AJAX technique to search for keywords. Not sure if this will be successful, I still don't know how this will be helpful but will have it in mind.</p> <ul style="list-style-type: none"> <li>- Interaction: Users can add comments on each item in a gallery expressing their opinion. A jQuery plugin will be used that adds markers and notes to an image.</li> </ul>	<ul style="list-style-type: none"> <li>- Implementing a Facebook comment plugin requires me to create an APP Id which can be interesting but not necessary at this time. So I will opt out the comment idea and will lean on the fact that the audience can interact with Dania through liking her images and interacting with her from the contact page on social network or through sending her private messages</li> </ul>
8	<p>Contact: is a way for her audience to contact Connect with Dania using a very simple form to be sent as an email to her. Additionally, her social media links can be used as a way for interaction with her audience. URL:  <a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/contact.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/contact.php</a></p>	<p><b>Accomplished</b></p> <ul style="list-style-type: none"> <li>- Short Contact Form: I used html form tag, php and required fields validator.</li> </ul>  <ul style="list-style-type: none"> <li>- Social media links: Viewers can either look her address up through GoogleMaps, follow her on Facebook, and connect with her on LinkedIn.</li> </ul> 
9	<p>Google Map with an indication of where Dania is.</p>	<p><b>Accomplished</b></p> <p>I used embedded Google Maps and used JavaScript to call Google API and fancybox to present it in a frame with all required helpers.</p>



		
10	Email functionality and verification.	<p><b>Accomplished</b></p> <p>There are three required fields; Email, Subject and Comment/Message. If the viewer/sender attempts to leave one of those fields blank it will not process the message and will ask the viewer to make sure he/she fills out the fields.</p> <div data-bbox="724 879 1101 1415"> <p><b>Message Dania</b></p> <p><input type="text" value="fadwakhail@com"/></p> <p>Please enter a valid email address.</p> <p><input type="text" value="Enter Subject"/></p> <p><input type="text"/></p> <p><input type="button" value="Send"/></p> </div> <div data-bbox="1149 888 1528 1404"> <p><b>Message Dania</b></p> <p><input type="text" value="Enter email"/> This field is required.</p> <p><input type="text" value="Enter Subject"/> This field is required.</p> <p><input type="text"/></p> <p>This field is required.</p> <p><input type="button" value="Send"/></p> </div>
11	Interactive Messaging.	<p><b>Accomplished</b></p> <p>After the viewer/sender clicks on the "submit" button to send the message, he/she will get a confirmation as shown below.</p>



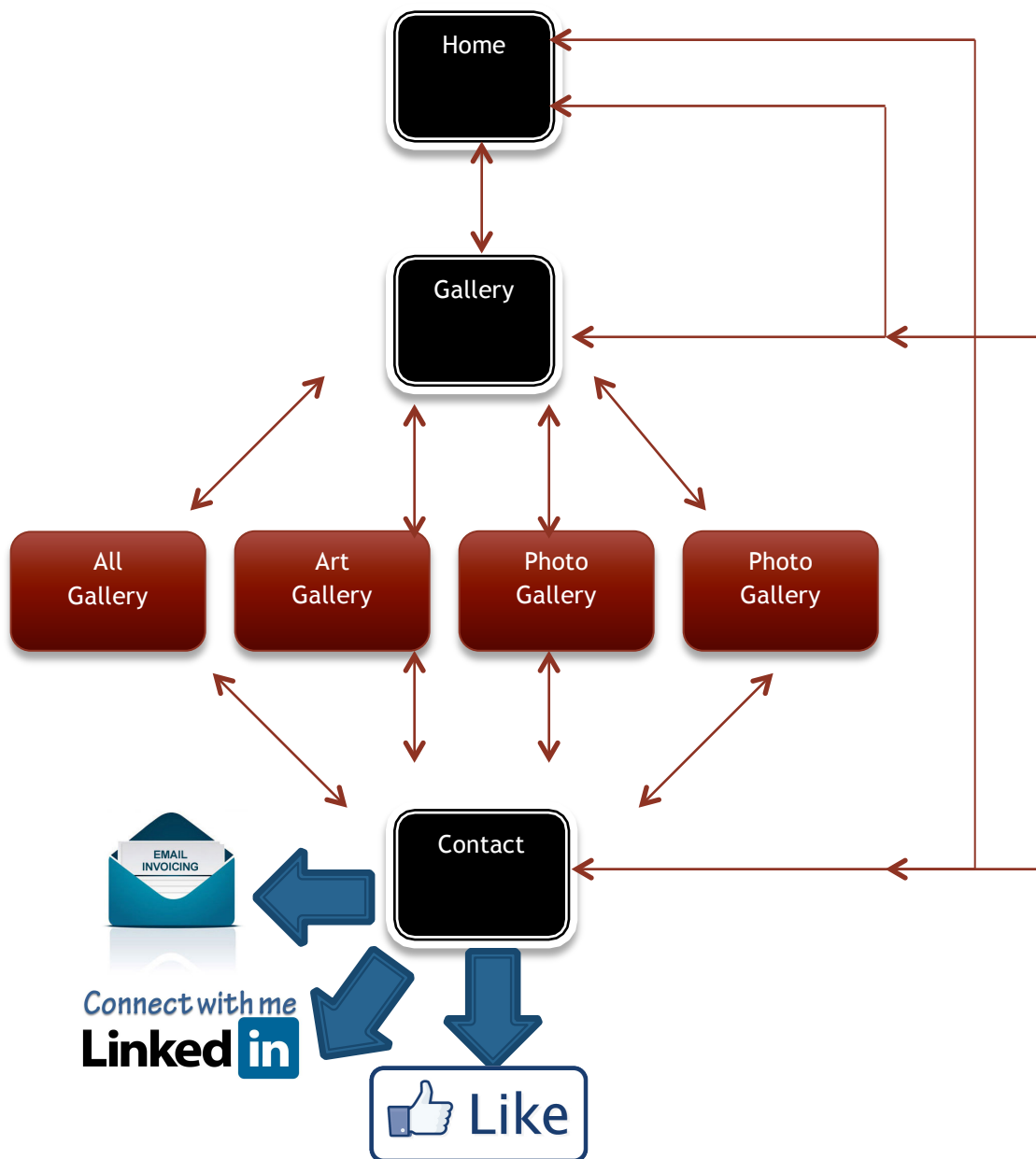


## Content (Revised)

The storyboard of my website includes the flow of pages in order as follows:

- Home:
  - o Title and Theme
  - o News Update
  - o Biography
- Gallery:

- All Gallery
- Art Gallery
- Photography Gallery
- Songs Gallery
- Contact:
  - Simple Messaging (email) form
  - Social media links
  - Google Map location.



I have revisited my diagram that I included in my proposal and modified it based on my actual design as follows:



I have created the following list of folders and files:

Item	File Name	URL
1	index.php	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/</a>
2	home.php	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/home.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/home.php</a>
3	gallery. php	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/gallery.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/gallery.php</a>
4	art. php	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/art.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/art.php</a>
5	photo. php	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/photo.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/photo.php</a>
6	song. php	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/song.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/song.php</a>
7	contact.php	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/contact.php">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/contact.php</a>
8	includes	bottom.php
		artlib.php
		photolib.php
		songlib.php
		mainhead.php
		galleryhead.php
9	Scr (includes all JQuery library and CSS files)	
10	Report	<a href="http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/fKhalilfpv2.pdf">http://cscie12students.dce.harvard.edu/~fkhalil/CSCIE12/Final_Project/FinalProject/fKhalilfpv2.pdf</a>
11	Error.html	-

I have also uploaded the deliverables on my github repository at <https://github.com/fadwakhalil/CSCIE12>

A video presentation can be found on this youtube link: <https://youtu.be/AG3MEOH-gww>

### Browser testing:

The "User-Agent" string of the browsers that I'm using and tested my website on are:

1. **Chrome:** Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_9\_2) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36
2. **Safari:** Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_9\_2) AppleWebKit/537.74.9 (KHTML, like Gecko) Version/7.0.2 Safari/537.74.9
3. **Firefox:** Mozilla/5.0 (Macintosh; Intel Mac OS X 10.9; rv:37.0) Gecko/20100101 Firefox/37.0

### Error Page (.htaccess)

I have created a .htaccess file where I defined the following:

1. Error document response for HTTP response status of 404 ("Not Found")
2. Expiration headers so that CSS, JavaScript, and image (JPEG, GIF, PNG) files are cached for one day
3. HTML/XHTML, CSS, and JavaScript files are compressed in the output filter before they are sent to the web browser.

### Markup and CSS Validation (W3C Validator):

I used HTML5 and CSS3 for my website code and validated the Markup and CSS files accordingly. My results are:

- **home.php: Pass**
- **home.css**
  - Error: Sorry, the at-rule @-webkit-keyframes is not implemented
  - Why: Prefixes like this one are not within the W3C specification and they are browser specific, so you will always have something like this when running W3C validation. The same goes for any browser specific CSS hacks.
- **gallery. php: Pass**
- **gallery.css: Pass level 3**
- **art. php: Pass**
- **photo. php: Pass**
- **song. php: Pass**
- **contact.php: Pass**
- **contact.css: Pass level 3**

## Lessons Learned

I'm very excited as I've always wanted to be able to design and create websites. Taking this course and going through all the assignments we've been working was very helpful. Now, with this project I have learned a lot. Everything works well to an extent, and I have realized that there is always window for improvement as long as

we have the backbone and structure of what we need to accomplish. Several functionalities that I have implemented can be done in different ways and many more that still needs to be added. In this section I will be sharing with you my thoughts.

The items that I'm pleased with are:

1. The home page conveys the purpose and vision of the website clearly, and interacts well with the user.
2. The header of the home page is
3. The flexibility in turning the automatic background audio off and on is very handy.
4. Easy to maintain due to PHP structure that I built, where the admin can easily add/remove media files, and change fancybox presentation.
5. Easy navigation through slides in the Gallery.
6. Easy to figure out where the viewer is within the website through the breadcrumb added to each page.
7. Reaching out to Dania is very friendly and easy.

The items that requires additional work:

1. The display of the gallery (photos, artwork and songs) can be done differently, making it faster to load.
2. I used CSS only for the grow feature (Zooming) of images when hover over media items. Maybe with further tweaking with CSS, a border can be defined so as not to have a visible overlapping of images for the last item in every gallery page. Also if javascript was used it might be smoother.
3. The contact details (locate me, connect with me on LinkedIn and Facebook) can be illustrated in a more attractive way.
4. Controlling the audio player was done by using javascript. Currently if a user clicks on regular images the music keeps playing. But when the user clicks on a song, the player will pause which is the desired outcome. However, when the user closes the youtube/song layout, the player is expected to play again, but now it doesn't as I couldn't find the javascript Event Method referring to "close".

If I was given the chance to approach this project again, I might end up doing the same design structure. Might go different with theme colors though. What helped me in this enjoying experience is adopting the indentation and commenting practice since the very beginning when I started writing the code. So I will definitely stick to this approach as I recognized how important it is as I progressed and things got more complicated.

## Future Directions

This is my first real experience in implementing a website using HTML, JavaScript and CSS, as well as some PHP. I have learned a lot from this experience and from my own perspective, I believe what I have accomplished so far is a great step towards a stable website for my sister Dania.

I kind of accomplished my vision for this project. As I have mentioned in my proposal, continuous improvement is necessary to make Dania's website more effective in serving its function. Several features can be added in the near future which would enhance the interaction between Dania and her viewers. Some of these features are:

- To create a Blog for the gallery to enable more related interaction on the gallery and on each item of the gallery
- Purchasing Cart so Dania can initiate a real business. This will include viewers choosing one or many items of the gallery and place it in the cart. That would also require a user database that holds login details.
- Improve the speed in loading media, noting that I compressed the images but I have notices some slowness in loading.

I believe I have met the requirements for a presentable, user friendly, and informative website.

Thank you for this very informative, beneficial and enjoyable course!