

Artistregistry.com

by

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Abstract

Artistregistry.com offers artists the ability to have a presence on the web, without having to pay for their own website. Member artists have the ability to have one or three pages of personal content created for them. They have control over the look of their page, along with the content that is available. The site artistregistry.com has been around since 2001 but has been left untouched since 2004. The new site aims to meet the needs of the current member artists, and attract new members to the website. To do this the website will be built with PHP, MySQL, XHTML, CSS. A layout will be provided that is visually appealing, but not cluttered and confusing to use. It will be built in such a way to allow for future upgrades and features to be placed in. Artistregistry.com aims to offer a resource to its members that allow them to have a customizable presence on the web.

Artistsregistry.com

1. Statement of the Problem

The website Artistregistry.com was once a thriving community of artists that could share their artwork and display it on the web. An event happened in 2003 that made it impossible for the site's creator to make updates or improve the website. Since then, competing websites have come about offering services similar to the ones that Artistregistry.com offers. As it stands now, the current Artistregistry.com can not compete, and is continually losing members.

To revive this website to its previous stature, there will need to be substantial changes. First, the overall look and feel of the website is dated and cluttered. A fresh look is needed that is visually appealing to artists, but not confusing to navigate for the common web user. Next is the need for new features for potential member artists to help entice them to join our community. For instance, offering the member artist a portfolio website. Within this website the member artist will have control over both color and layout of their portfolio. The portfolios will be included into a directory of other member artists that is searchable by name, location, and type of artwork. With the addition of the above mentioned service, artistregistry.com will need a way of processing credit cards as member artists sign up to join the community. As it stands now, the website can only handle payment by PayPal.

This website was once home to over 500 active members and portfolios, and with the above improvements it can regain those numbers and grow even further. There is interest from artists for a solution that grants them the ability to setup and maintain their own website and be part of a community of other artists, and artistregistry.com can offer this service to them.

2. Description of the Solution

My solution to draw visitors and new member artists back to artistregistry.com is to dump the current website, and start fresh with a new approach. Most of the database information will be retained, but with a new approach to displaying the information to visitors. Also, we need to make it simple for members to sign u, display their work, and edit the content as they see fit.

The key features that this system will use are as follows:

- Enhanced search features to find member artists
- Ability for the website to build pages for the artist on the fly
- Simple interface to allow members to control the look and content of their pages
- A secure payment method that will accept major credit cards
- A simple to use gallery to display their artwork

With these new features, new members will be attracted to joining this online community of artists.

2.1 User Profile

Member Artist:

The most important type of user will be the member artists, because they are the ones that have paid to use the website. Making their experience a stress free one will ensure their repeat business. They will have the ability to login, manage, and add content to both their personal website, and community portions of the website such as the calendar. This type of user should have basic computer skills and general experience using the internet. Since they may not be internet experts, there will be ample help available to them.

Visitor:

The next type of user will be the every day visitor of our website. They will be either able to browse though the directory of member artists and view their work, or sign up to become a member themselves. The site visitors will be of the same technical ability as the member artist, and the site needs to be presented to these visitors in a way to encourage them to become member artists.

Administrator:

The final type of user will be the site administrator. This user will have ability to moderate content on the member's pages, as well as ability to edit and delete users. They will also be in control of the content on the main page. The administrator will be required to have an understanding of how the backend of the website works.

2.2 Design Protocols

Organizational Scheme

Artistregistry.com will be organized into three main areas. These areas will include an administrative interface, a member interface, and a general public interface. Administrators will be able to maintain the content of the main website and manage the users and database. Members will have access to change their own content on their personal pages, and their own account information. The general visitor will be able to view member's pages and any content on the main pages.

On the main page, there will be links for visitors to search member artist on a number of criteria. They can search member artist by name, location, and the type of art that the member produces. The site will generate a list of member artists that meet the user's search criteria. There will also be links to a community calendar that a member artist can use to pass information about upcoming events to other member artists or the general public. The main page will generate content that pertains to current site news, recent searches, new member spotlights, and featured artists.

For the member artists and administrators there will be their own personal area where they can maintain their content, images, and personal site layout. For both the member and administrative areas the user will have to login, and then will be redirected to the appropriate section of the website.

The overall site layout will lean more to a minimalist style to avoid being cluttered and confusing. This will also help focus the visitor's attention on member artists and their work. The site will use a two-column layout with the larger left column being used to house the content, while the smaller right column will be used primarily for navigation.

Database Design

The database for artistregistry.com consists of three tables that share one to many and one to one relationships. Each table has a high level of importance, but two of the tables are dependent on the Users table. The Users table and the Members table share a one to one relationship. The reason they are not combined into one table is that there are users of the website that are not members, like the site administrator. The Pages table has a one to many relationship with the Users table. Site administrators will have multiple pages of content that they are responsible for updating. Also, members who have chosen to have a three-page portfolio built for them will have three pages of content that they can edit and update.

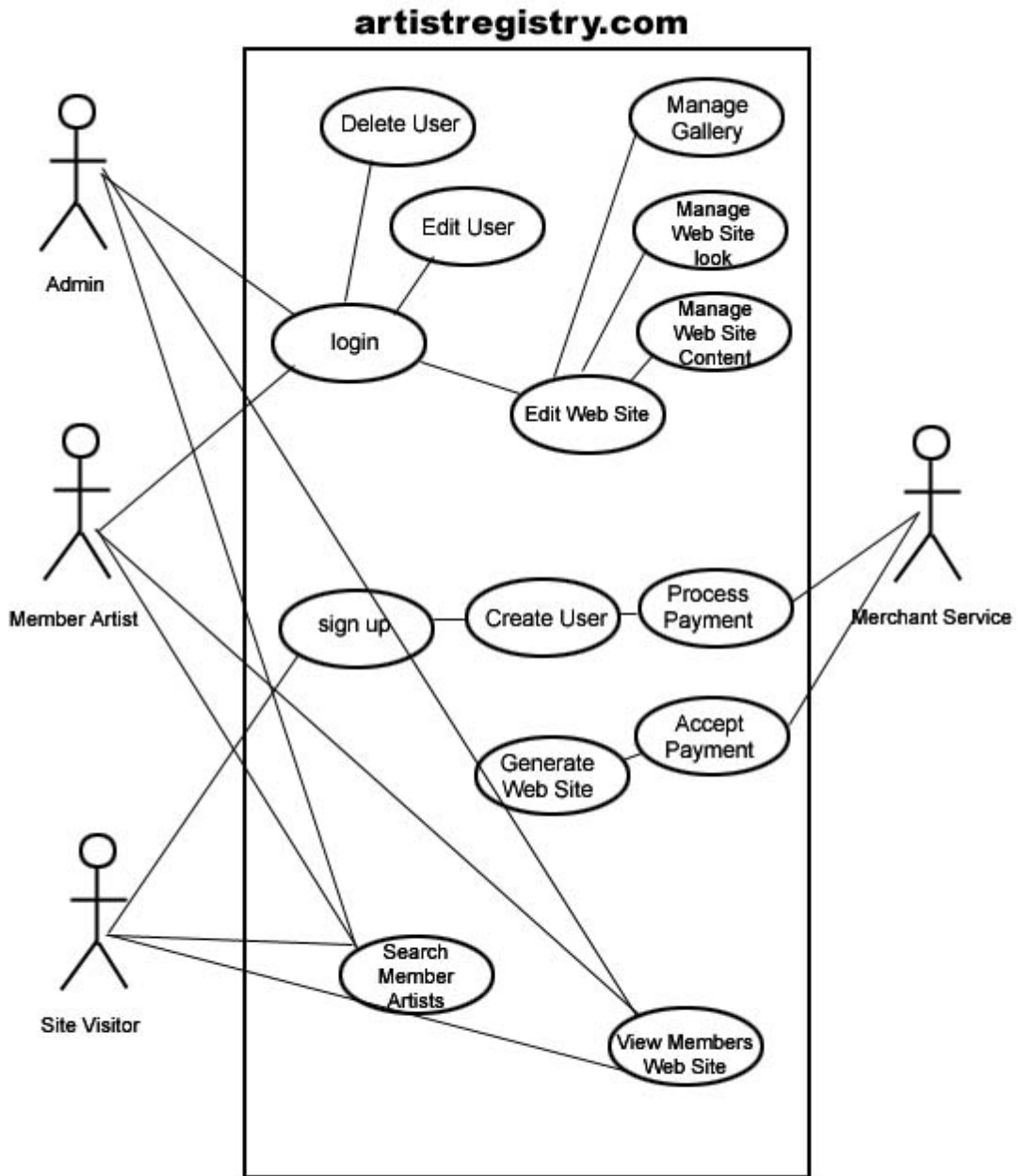


Figure 1: Use-Case Diagram

2.2 User Interface

The screenshot displays the ArtistRegistry.com website interface. At the top, there is a green header with the 'AR' logo on the left and 'artistregistry.com' on the right. Below the header, the main content area is divided into several sections:

- Our Premium Listings:** A text block explaining the benefits of premium listings, such as receiving a full-page listing, a complete bio, and 9 samples of work.
- Featured Artist:** A section featuring an oil painting titled "The Messengers" by Orestes Bouzon. The painting depicts a woman in a blue dress surrounded by colorful, ethereal figures.
- Featured Website:** A section for the American Impressionist Society (A.I.S.), including a description of the society's mission and a link to their website (<http://www.americanimpressionistsociety.org>).
- Whats the Cost:** A text block detailing the pricing for premium listings, set at \$25.00 per year.
- Our Purpose:** A text block explaining the website's goal to provide an online resource for artists to gain exposure.

On the right side of the page, there is a vertical navigation menu with a green background and white text, containing the following links: **login**, **home**, **search members**, and **create account**.

Figure 2: Page Layout

2.2.1 Interface design/navigation

The navigation of the website will be broken into two sections. The main links will be located along the right hand side of the website. Any sub sections of the page will be displayed as tabs across the top of the main content area. This reduces the number of links on the main navigation column.

When someone first reaches the website they will be given a limited amount of options. If they are a member or administrator, they can click on the login link at the top of the navigation column. (see Figure 4) Once the person has logged into the website, they will then be given the options that pertain to the type of user they are. (see Figure 5) For example, if the member is just a basic member, they will not be given a link to edit their website because they do not have one to edit. Users that have paid for the service will have the option to edit and preview their website from the links on the navigation column.

Pages that are sub sections will be displayed as tabs across the top of the main content column. For example, when a user wants to edit their website, they would have to click on the link in the navigation column that says “edit site.” When they go to the edit site page they have three tabs across the top of the page that will take them to edit their content, page layout, or images in their gallery.

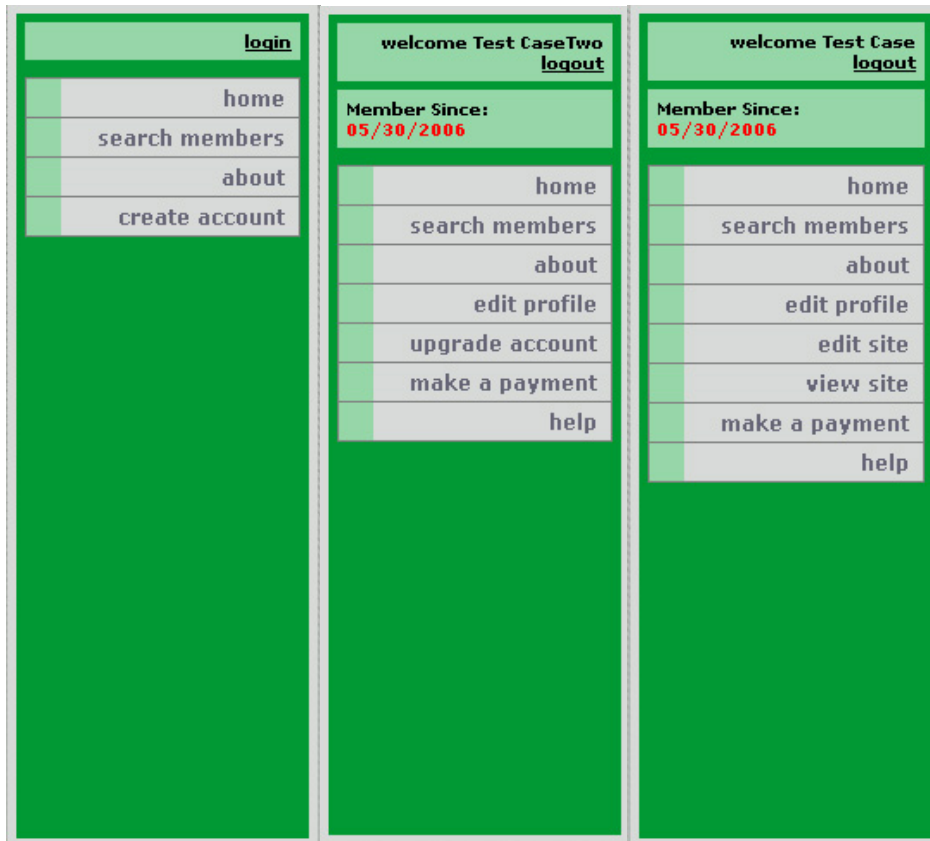


Figure 3. Side Navigation

2.2.2 Icons/graphical symbols



Figure 4: Header Graphic

The original site did not have any logo or graphical symbols that were persistent through each page. The image that is shown in figure 4 is the graphic that is used across the top of each page. The only pages that will not have this graphic are the pages that are created for the member artists. Inserted onto each of the pages that are created for the member artist will be the AR that will link back to the main website.

2.2.3 Color scheme

Dark green and grey were the dominate colors of the original website. These colors were kept for the new site so that returning members would recognize where they were. The new colors are now more bright, but not outrageous as to distract a visitor from any artwork that is being displayed on one of the main pages. The dominate colors are listed in Figure 5 with their hexadecimal values.

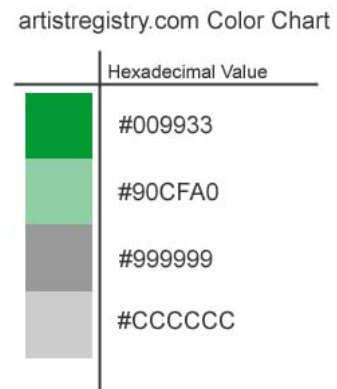


Figure 5: Color Chart

2.2.4 Help

On the main navigation list there will be link that will take the user to a designated help section of the website. Within this help section will be instructions on how to edit their personal information and website, along with a walkthrough on how to add information to any of the community areas, and how to contact an administrator with any questions that they may have.

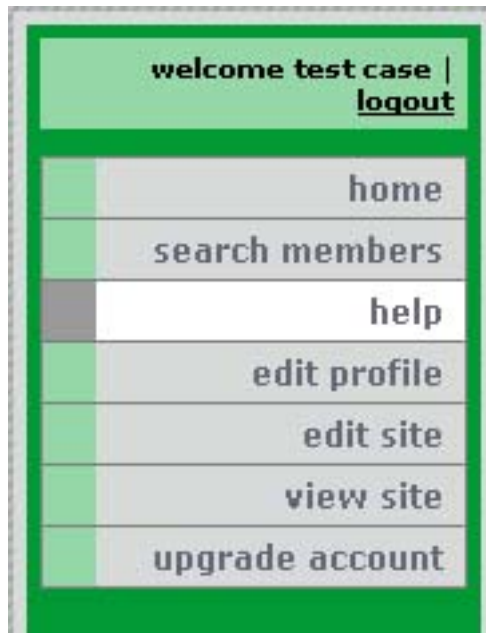


Figure 6: Help Link Location

3. Deliverables

1. MySql Database.
2. Website developed in XHTML, CSS, and PHP.
3. Authentication for Members and Administrators.
4. Ability to process payments that connects with a merchant service account
5. Ability to create directories, and HTML pages on the fly.
6. Ability for Member artist to update personal pages
 - Update content
 - Change site layout
 - Change site colors
 - Add and remove images in their gallery
7. Ability for Visitors to search by
 - artist name
 - type of art
 - location of artists
 - Text

4. Design and Developments

4.1 Timeline

4.1.1 Senior Design I Accomplishments

During Senior Design I the following was accomplished:

- Analyzed Previous Artistregistry.com
- Analyzed Competing Websites
- Interviewed Artistsregistry.com Owner, and potential users
- Researched file and directory creation in PHP
- Developed my proposal and presentation

After several sessions of discussions with the owner of Artistregirsty.com I was able to build a list of what the status of the old website was. We created a list of what the users liked about the website, and how the site was set apart from the competition. Next prices were set for the premium services that the website would offer. It was decided that the money that was made would be used to cover the cost of hosting the website. A framework of the new website was built, along with potential layouts for the final product.

4.1.2 Senior Design II Accomplishments

During Senior Design II the following was accomplished:

- Created Database
- Created User Interface
- Created User Authentication
- Created User Creation, and File Creation
- Developed Design Freeze documentation and presentation

My first step was to create the tables in the database to hold the users and members. After this was accomplished I created the user creation and authentication methods. User creation was broken up into 5 steps, and all of these steps were completed with the exception of the payment processing. Along with these functions the layout for the website was finalized, and the appropriate page structure and style sheets were created. The website was prepared for the Senior Design II presentation such that most of the functions that were created in this quarter functioned correctly.

4.1.3 Senior Design III Accomplishments

During the Senior Design III the following was accomplished:

- Completed User maintenance programming
- Completed Administrative programming
- Completed Search features
- Completed Payment features
- Tested final website
- Finished final documentation and presentation

The ability features for the users to control their website and content was added between the senior design II and III quarters. Once this was finalized the administrative controls to edit and delete uses, along with the ability to change website content was added. During the testing of the Original search feature, the results were not showing as they were originally intended. The search feature was scaled back slightly, and allowed the user to focus the direction of their search.

4.2 Budget

Displayed in the figure below is the budget for this project. To note the server that hosted this project and the hosting costs were covered by my place of work. Because this project was built to work with Apache, Linux was used, and there was no other cost involved with the server other than the hardware and bandwidth costs. The cost of the development software was covered by licenses at my place of work. The only cost out of my own pocket was the laptop that I purchased and used to complete the project.

Hardware	
Item	Cost
Work PC (<i>estimated</i>)	\$1,500.00
Work Laptop (<i>estimated</i>)	2,300.00
Web Server	4,500.00
Total Hardware:	\$8,300.00
Software	
Item	Cost
Adobe Photoshop	\$649.00
Macromedia Dreamweaver	399.00
Total Software:	\$1,048.00
Miscellaneous	
Item	Cost
Hosting (<i>six months</i>)	\$90.00
Books	80.00
Total Miscellaneous:	\$170.00
Grand Total	
	\$9,518.00

Figure 7. Budget

5. Proof of Design

This section show how each of the deliverables of this project were completed, and the problems that were overcome.

5.1 MySQL Database

The first task that had to be completed for this project was the MySQL database. The database is composed of 5 tables that share one to one and one to many relationships. Since the focus of this website is to provide a service to its members, the database is built around the members table, with all relationships coming from that table. Figure 7 shows a detail description of how the database was built.

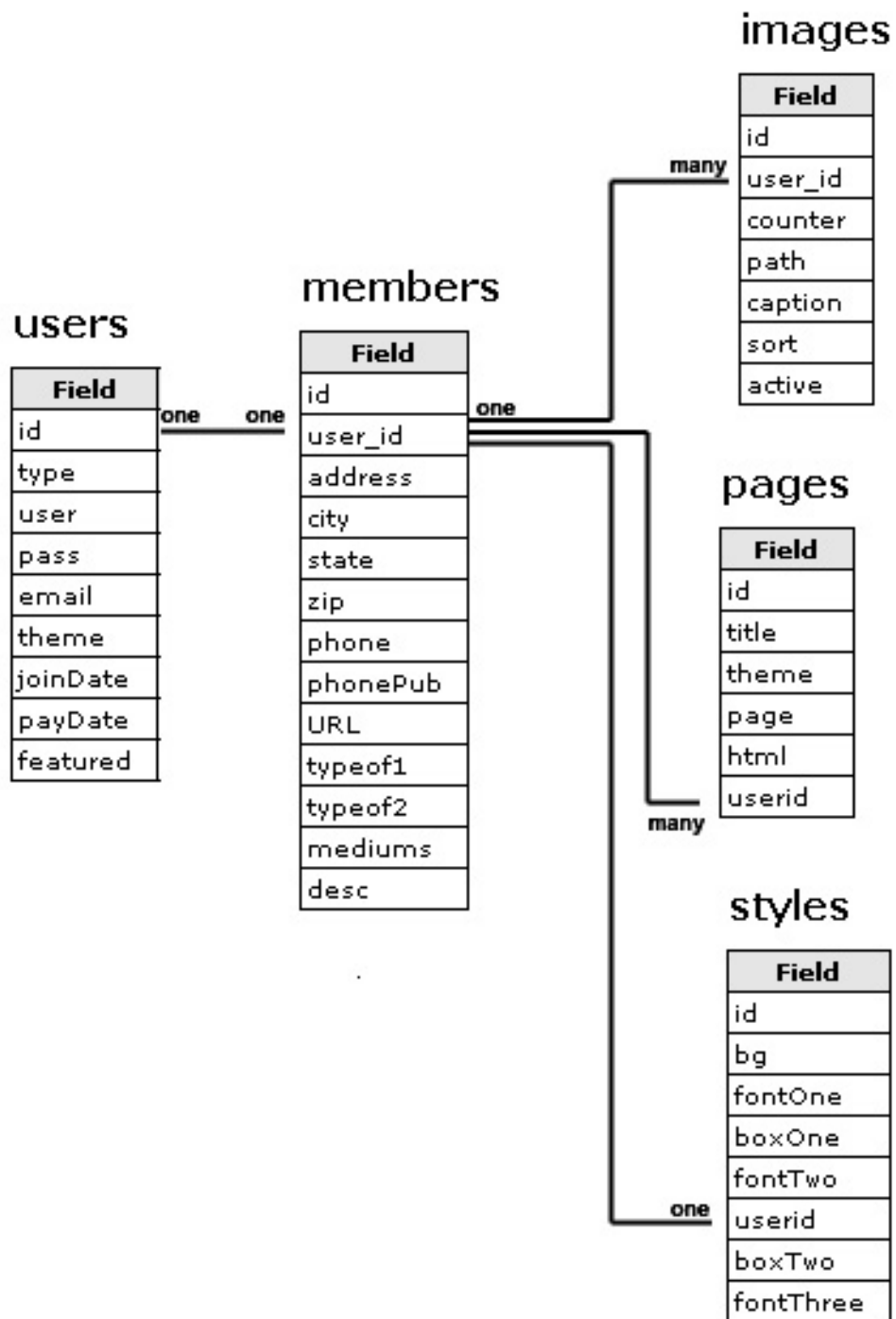


Figure 8. Database Diagram

5.2 Website Developed in XHTML, CSS, and PHP

Our Premium Listings

Artists registered with the ArtistRegistry.com™ receive a full 3 page listing on our site. You receive a complete website with an Intro page, where you can make a brief statement, and include info about upcoming events, a bio page where you can include a biography about yourself, and a gallery page with 12 samples of your work. This is a full 3 pages and is perfect for artists who have no website, and is a compliment for those with an existing website, as it can link to your site and increase your sites ranking. This is a very affordable way to promote yourself online. Each artist can select a color scheme to use on their page to coordinate with their individual taste.

Featured Artist



Jane Zint

Featured Website



Do you paint with an impressionistic style? Like to communicate with other impressionistic painters? Take a look at the American Impressionist Society. The American Impressionist Society (AIS) was founded by Florida artists William Schultz, Charlotte Dickinson, and Marjorie Bradley, of Vero Beach, and Pauline Ney, of Ellenton. It's goal: "To promote the appreciation of Impressionism through exhibitions, workshops and other media." Visit their website at:

<http://www.americanimpressionistsociety.org>

Whats the Cost

Basic Listing - Free Includes: name, address, phone number, style of artwork.
Enhanced Listing - \$25.00 / yr Includes: Full Single Webpage, with name, address phone number, url to website, info about artist and 6 images.
Premium Listing - \$150.00 / yr Includes: A three-page Web site will consist of an intro page, biography page, and gallery page. First two pages are completely editable by the artist, and the gallery has spots for 12 images. Certain criteria must be met to be included in our registry, make sure you read our "short" terms for submission.

Our Purpose

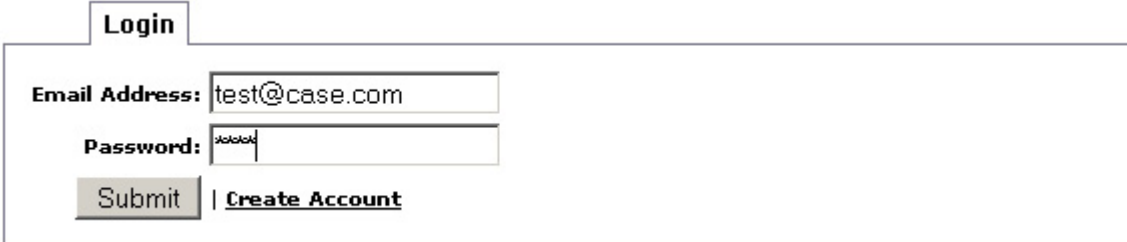
To offer artists an online resource to give them exposure to art patrons, or galleries interested in their art. ArtistRegistry.com™ does NOT sell art, and we do NOT buy art. We do not officially represent any artists. Go read a little [about us!](#)

Figure 9. Content On Main Page

Once the database was completed the structure of the website had to be built. This was accomplished by building a mock up the website with Adobe Photoshop. Once the design was approved the design was then implemented into XHTML and CSS. From this point the design was tested for cross browser compatibility, and validated using the XHTML 1.0 Transitional standard along with the CSS standard.

After the template for the pages was completed it was broken into two parts separated by the area where the content of the site would be delivered. Other than the files that the site creates on its own these two files were then used on every other page on the website. Other changes were made to these files to allow for the menu to side menu to dynamically change when a member is logged in.

5.3 Authentication for Members and Administrators



The image shows a login form with the following elements:

- Title:** Login
- Email Address:** test@case.com
- Password:** [masked]
- Buttons:** Submit, [Create Account](#)

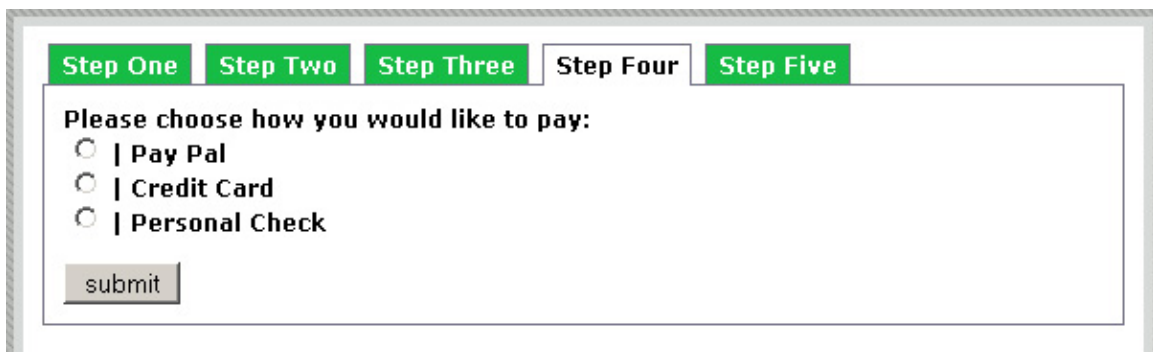
Figure 10. Login Screen

There are six different user groups for this website, visitors, administrators, probationary members, basic members, silver members and gold members. Each of these members has different functions of the site available to them. The control of what the user has access to is handled in two ways. First is by the menus, they read what user type the visitor has, and then builds the appropriate options for that member. The second way is by continual authentication. On each page there is a method that checks on the users status, for example if a user was to try and access a page in the administrative folder, that user would be redirected back to the login screen if they were not already logged in and were not a part of the administrators group.

The user is authenticated by their email address and a password, the user's information is then collected from the database and then stored in session variables. Each page that the user visits they pass through the authentication process again, if they are in the correct group to view the page they will never know that the authentication has happened. Pages that the member is not a group member of will redirect them back to the index page.

5.4 Ability to process payments that connects with a merchant service account

There was a need to provide users multiple ways to process payments. The old website only had the ability to process pay pal payments. The pay pal processing was used for the new site, along with credit card processing, and information for paying with personal checks. A SSL certificate was purchased and installed to allow for credit card transactions to be sent to authorize.net. Validation is performed before the credit card information is sent off to make sure the credit card information is in the correct format. When the user's credit card information is approved the process continues on to directory and file creation. If the information is not correct the user is told to contact us, and the user is placed in a probationary status.



The screenshot shows a payment screen with a progress bar at the top containing five steps: Step One, Step Two, Step Three, Step Four, and Step Five. Step Five is currently selected and highlighted in green. Below the progress bar is a form with the heading "Please choose how you would like to pay:". The form contains three radio button options: "Pay Pal", "Credit Card", and "Personal Check". A "submit" button is located at the bottom left of the form.

Figure 11. Payment Screen

5.5 Ability to create directories, and HTML pages on the fly

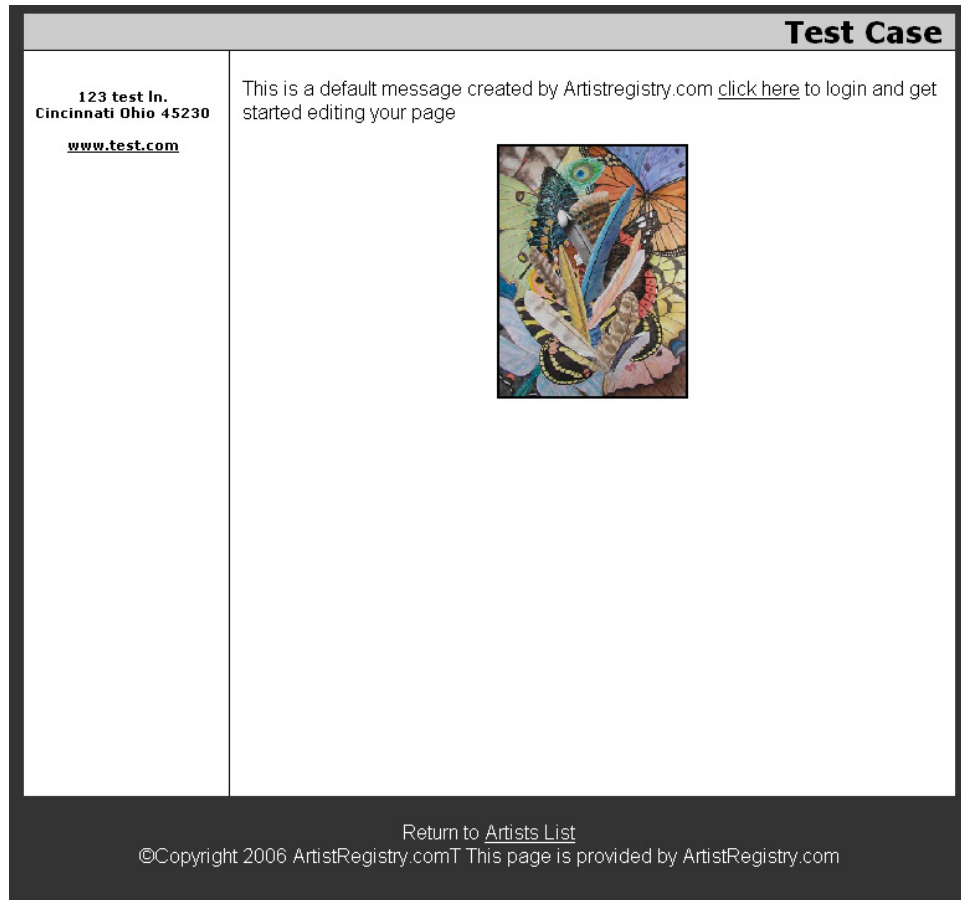


Figure 12. User Created Page

The creation of a directory, with either one or three web pages for users proved to be one of the more difficult tasks of this project. It was accomplished by the use of template files. The users directory is first created and then base on if they want one or three pages, the appropriate templates are opened and then written to the correct directory. The page content is then written to the database, using the pages, images, and styles tables. When a user visits a members page, the page reads what directory its in and then pulls the correct information from the database for that page.

5.6 Ability for member artist to update personal pages

After the user has a page created for them, they then have the option to customize their pages with content, images, and the colors of the pages. They also have the option if they are an basic or silver user to upgrade their account to add more pages.

5.6.1 Update Content

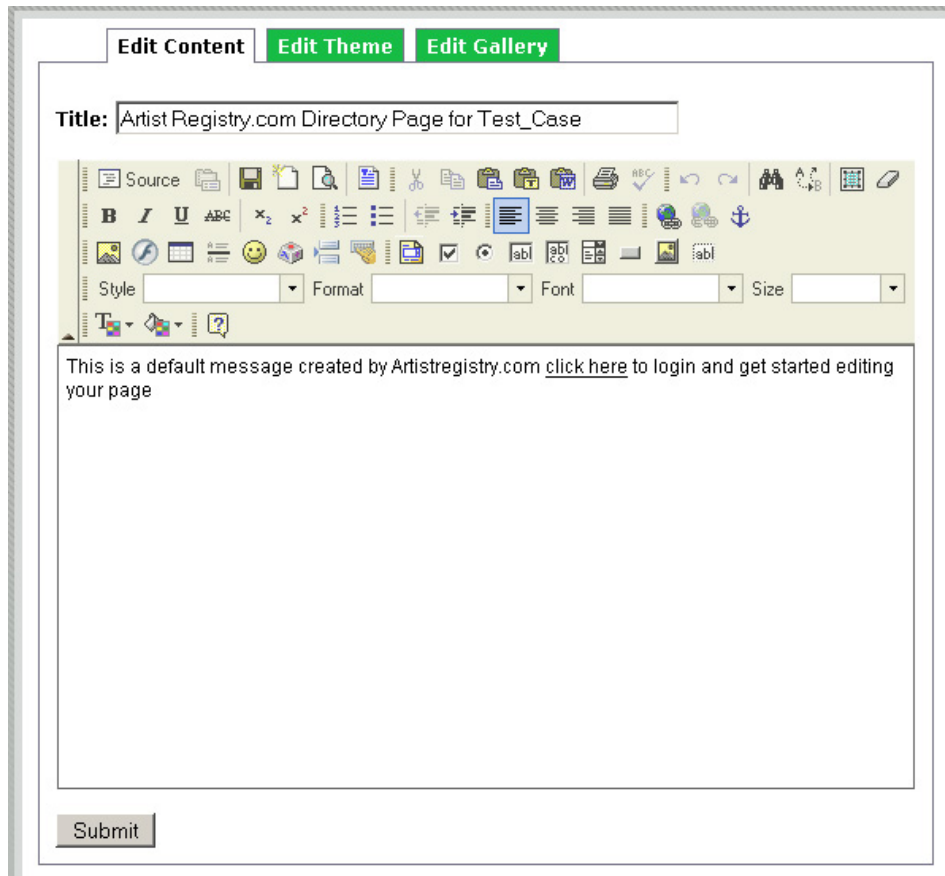


Figure 13. FCK Editor

To give the user the ability to update the content of their pages I wanted to give them a familiar interface to use. FCK editor was used because it has a look close to Microsoft word, and it was easily implemented into the project. The user has the ability

to format their text, and do such things as insert tables to give their personal space a more organized look.

5.6.2 Change Site Layout

If a user wants to upgrade their account to allow for more pages, the option is provided for them. There is a menu option that once clicked on goes to the payment screen, and once the payment is authorized their directory is rewritten with the new pages.

5.6.3 Change Site Colors

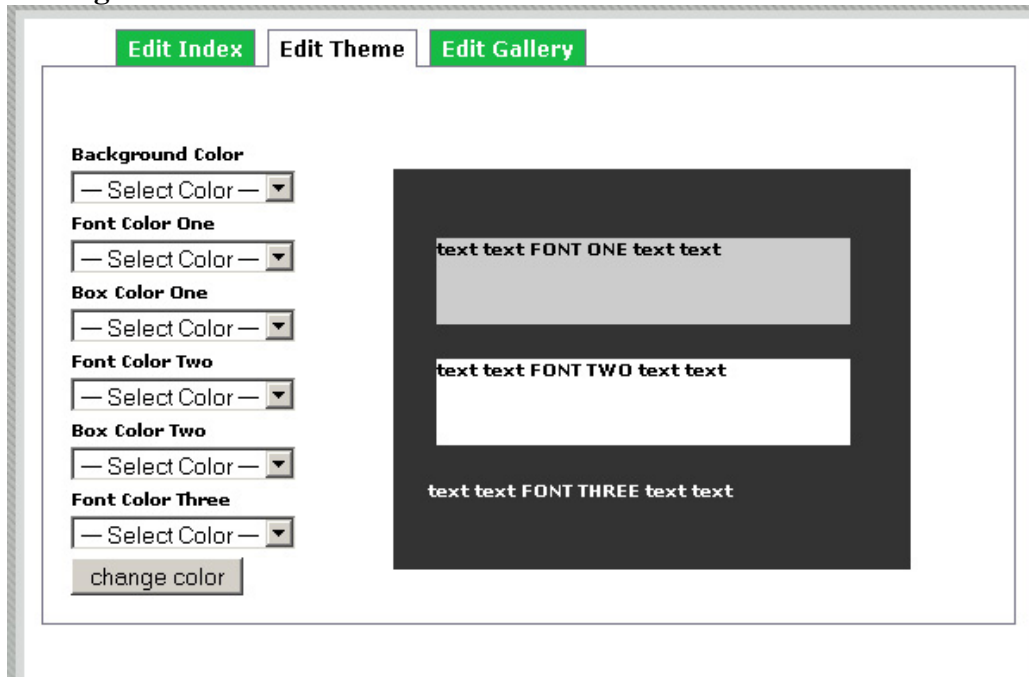


Figure 14. Edit Theme Screen

The user is allowed to update the colors of their personal webpage. They have the ability to change colors in 6 areas, with 16 color choices for each area. The colors that the user chooses are collected and put into the styles table. When a visitor visits the member's page, the style information is retrieved from the database and put into the user's page.

5.6.4 Add and Remove images in their gallery

The screenshot shows a web interface for editing a gallery. At the top, there are three tabs: 'Edit Index', 'Edit Theme', and 'Edit Gallery'. The 'Edit Gallery' tab is active. Below the tabs is a table with six rows. Each row consists of a text input field on the left and a 'Browse...' button on the right. Below the table is a button labeled 'update gallery'.

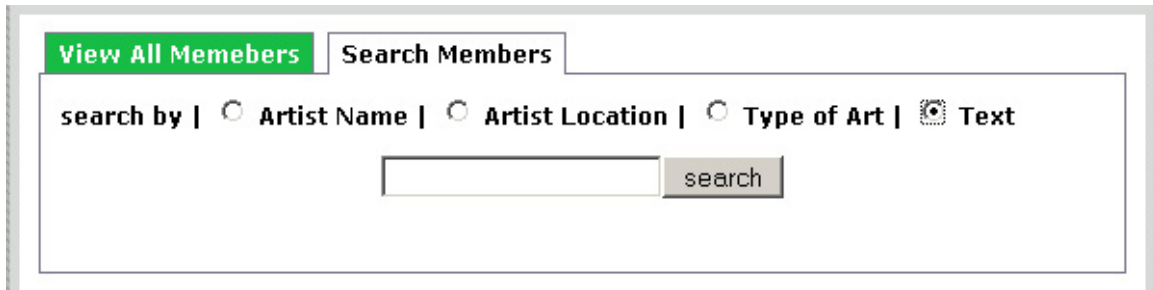
Figure 15. Upload Image Screen

Users have the ability to add either 6 or 12 images to their personal page, depending on if they have either a one or three page website. Their images are uploaded to their personal directory.

The system knows how many files the user has in their directory and if they are supposed to have. For example if the user has a one page website and only chooses to upload three images. The next time they try and upload images they will only have the choice to upload an additional three images. They also have the ability to delete images from their gallery from this page.

5.7 Ability for visitors to search

Visitors to the website should have the ability to search for member artists. The visitor has the option to search four ways. They are also given a master list of users that they can view.



The screenshot shows a search interface with a green button 'View All Memebers' and a white button 'Search Members'. Below these are radio buttons for 'Artist Name', 'Artist Location', 'Type of Art', and 'Text'. A search input field and a 'search' button are positioned at the bottom.

Figure 16. Search Members Screen

After the visitor chooses where they wish to search from, they can enter their search term into the text box. After the search has been finished a list of results is presented to them. The main function of the search is to give the visitor quick access to a members site. The link is provided to the visitor after the search results have been completed.

6. Testing Procedures

Testing of the website was done on a continual basis from the start of project. A subdomain was created off of the artistregistry.com domain to house the project. This caused a few problems during development, at one point the php.ini file was modified without my knowledge and caused a few features of the website not to work. Besides the minor issues involved with testing on the live server it helped me keep major issues from hanging around, or a long delay when the site went live.

Since the site was placed on the environment of its final destination it allowed me to tailor the site to the specific needs of our server. This included things such as the server using older versions of PHP and MySQL and the handling of permissions when creating files. Whenever a file was created or new code implemented it was tested to

make sure it met its specific purpose. After a whole section of the site was created, I went back and made sure the whole section worked as a whole. At this point I also invited others such as the site owner, and past member artists to test out the sections and give me feed back.

During these tests a number of issues were brought to my attention. The largest issues involved the creation of the directories and files. Most of the problems stemmed from improper permissions, and a server update that changed the php.ini file within Apache. The other major problem we had was with payment processing and authorize.net payments, these problems were mostly due to a certificate that was installed incorrectly.

Once the site had come to a point where I felt it was in a position for a more large scale test, an email was sent out to the former member artist to have them test the site for any additional problems. Feedback is sent back to us in the form of an email and from there problems are investigated further.

7. Conclusions and Recommendations

7.1 Conclusions

Artitsregistry.com was created because of the major problems associated with the previous site. Along with the outdated visual looks, and insufficient features, moving the old website to a new server rendered it unusable. The new website was created using PHP 4.3.1, MySQL 4.1.1, Macromedia Dreamweaver 2004, and Adobe Photoshop 7.0. The real world cost of this project without figuring in labor costs is \$9,518.00. The

project completed all the deliverables set at the design freeze, and was tested to ensure usability.

7.2 Recommendations

To complete a project similar to this a strong understanding of PHP is a must. Along with this a knowledge, one must understand how their webserver works to complete some of the portions of this project. The portion of this project that required the most attention was the portions of the project that dealt with file and directory creation.

The webserver has to be configured to allow file creation with PHP, and even with the correct configuration there are other considerations that will have to be observed. Directory creation can only happen up one folder level from where the file that does the creation is located. There is several methods to create the directories and files, but I chose to take the steps of first loading a template, then creating the directory, and finally creating the files that go into the directory. The other option I had considered was the use of one template file and passing all of the information to template. The problem I came to during development was the storage of the member's gallery images. Also it was determined that the users wanted an easy to remember address to their personal page (ex. www.artistregistry.com/User_Name/).

Handling the way users manage the look of their personal page. I decided to break the style sheets into two pieces. In the external style sheet holds the structure of the page, and where the information is located. The inline style sheet holds the color information for each of the elements. This color information is held in the database for each of the users. This allows the users to change the colors and look of their pages without breaking their pages.

Appendix A.

Research Information

During my time researching this project I came across multiple recourses that were invaluable to the completion of this project. My information came from three areas, websites, interviews, and books.

<http://www.fckeditor.net/> - FCK editor is an open source project that allows text fields to have more functionality. I have used FCK editor for projects in the past, and has proven useful and user friendly. It tries to emulate Microsoft Word, and gives the user the option to format their text. The formatted text is outputted at html, and was easily implemented into my project.

<http://www.php.net> and <http://www.mysql.org> – Both of these sites are the official resources for both PHP and MySQL. Both of these websites offer excellent documentation and active communities. Most of the questions I found myself having had already been answered within the respective communities. Since both of these websites were the official sites of the software, I could be confident that the information provided was correct.

<http://www.w3schols.com> – Is a resource that offers guides with just about anything web related. The recourse I found myself using the most was the CSS guide. The guide is very comprehensive, and offers great guides in implementation. I was able to use this resource to create my well formed website that passed current web standards.

Appendix B.

Code Snippets

Directory and File Creation

To be able to create the directories and PHP pages for the member artists I had to created a few functions. The first function called `open_template`, reads the template file into a string, that sting is then passed to the next function. `make_dir` creates the directory and if the directory has been successfully created moves on to make the file. Also if a user is upgrading their account and creating new files, the directory is not over written, the new files are created inside of the old directory. The `make_file` function creates the PHP file from information that was created in `open_template`. Finally entries are instered into the pages table for the user editable information in the function `make_page`.

```
function open_template($filename){
    //$filename = "template.inc";
    $handle = fopen($filename, "r");
    $contents = fread($handle, filesize($filename));
    fclose($handle);
    return $contents;
}

function make_dir($dir, $filename, $content) {
    $theDir = $dir;
    if(!is_dir($theDir)){
        if(mkdir($theDir, 0777)){
            return $this->make_file($theDir, $filename, $content);
        }else{
            return 'your dir could not be created';
        }
    }else{
        chmod($theDir, 0777);
        return $this->make_file($theDir, $filename, $content);
    }
}
```

```

function make_file($dir, $filename, $content) {
    $response = array();
    if(!$fp = fopen($dir . '/' . $filename, "w")){
        $response[0] = "Cannot open file ($filename)";
        $response[1] = "err";
    }else{
        if(fwrite($fp, $content) === FALSE){
            $response[0] = "<br />Cannot write to file ($filename)";
            $response[1] = "err";
        }else{
            $response[0] = 'Success, your page has been created please log in to edit your
            content, click <a href="' . $dir . '/' . $filename . '">here</a> to view the file';
        }
    }
    fclose($fp);
    return $response;
}

```

```

function make_page($userid, $username, $title, $page, $html){
    $db = $GLOBALS['dataAccess'];
    $sql = 'INSERT
        INTO
        `pages` (`title`, `theme`, `page`, `html`, `userid`)
        VALUES
        (" . $title . ", "default" ,"/' . $username . '/' . $page . ", "' . $html . "', "' . $userid . "')';
    $db->query($sql);
    if($db->no_error()){
        return true;
    }else {
        $dataArray = $db->get_error();
        return 'DATABASE ERROR (' . $dataArray['error'] . '): ' . $dataArray['errno'] . '<br>';
    }
}

```

References

1. “FCK Editor” Frederico Caldeira Knabben 2006. <http://www.fckeditor.net> .
February 2006
2. Lerdorf, Rasmus and Tatroe, Kevin. *Programming PHP*. Sebastopol, CA O'Reilly & Associates, Inc. 2002.
3. “MySQL.org” MySQL AB 2006. <http://www.mysql.org> . February 2006.
4. “PHP.net” The PHP Group 2006. <http://www.php.net> . February 2006.
5. “w3schools” Refsnes Data. <http://www.w3schools.com>. February 2006.
6. Whittley Nancy. Owner, Cincy Web Design. Personal interview. 10 .February 2006