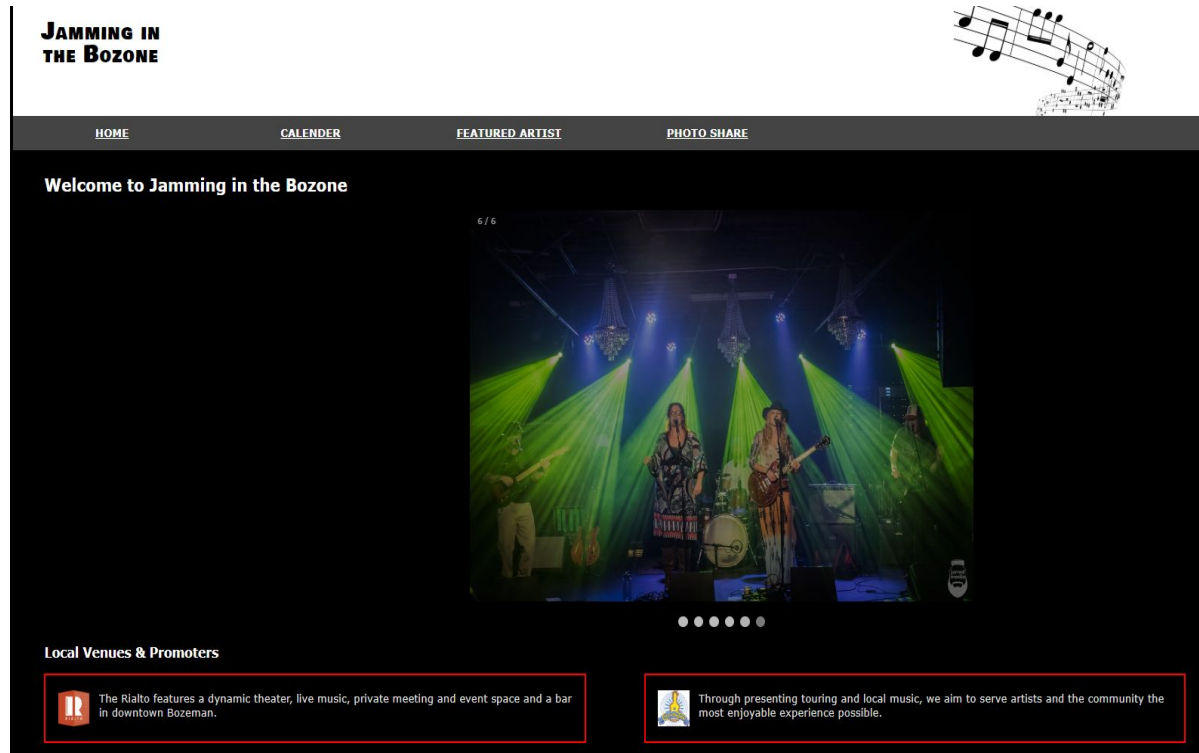


Jamming In The Bozone (Discover, Share, and Create music in Bozeman, MT)

Group 4: Max Carr, Ethan Miller, Bridget Wermers



Link to Our Website Hosted on Course Server

<http://csci491-01.cs.montana.edu/~x85b422/website/>

Our Mission

The objective of Jamming in the Bozone was to create a platform for the local music community to find, share and enjoy events, create photo galleries of events to be shared, and discover upcoming and established musicians through our featured artists. While there are many outlets for event calendars today, we have set out to cover a specific niche of events and provide supplementary information to encourage participation in Bozeman's music community. Our group felt as if the variety of pre-existing sites caused information to be spread out and one of our main goals was to be able to take all the local events and compile them into one site for easier user access. Our website administers three main functions in order to deploy information to the Bozeman community about music events: Photo Share, Event Calendar, and Featured Artist.

The photo share is designed to get more people involved, including photographers, videographers and average fans with a cellphone full of concert photos. The purpose of this is to create a way for people to upload, download and use photos of events for advertisement, personal use and more. This will also bring focus onto photographers in our community and encourage the building of relationships with other artists. Currently the display is just one album of all of the photos uploaded, but down the line we would like to see the photos split up by album based on the event the photos were taken at. We also did not accomplish a way to download or share the photos from our site, but it will be coming soon.

The event calendar allows user to see when an event is going to occur, specifically date and time. This page enabled users to look at our calendar see all of the events in Bozeman and plan according to their personal schedule. When a user clicks on an event they are interested in the event will provide the location, time and a link to buy tickets. Within this page a user can also submit an event recommendation and it will be sent to our admins to get put up on the calendar.

Finally the featured artist page is the perfect place to get bands noticed. Whether they are up and coming or have been around for 10 years, there are always ways to increase an artists following. On this page we strive to involve fans by having them recommend artists to be featured. Within the feature, users will be able to view pictures of the band, hear available recordings, and read about the band's history and its members.

Our page's purpose is to increase Bozemanites' involvement in their community's artistry; from fans to photographers to musicians. The input of our users is a vital part of running the site, because without them we do not have any incoming information or any information to share with people coming across the site. If admins were creating all the content on the site, it would be pretty boring and bias, so tell your friends, get involved and be a part of the community.

Website Admins



Max Carr is a Junior in computer science with a focus in web design. After graduation he plans to work in the field for a short while before getting a masters in either business management or marketing where he hopes to manage sales for a CS focused company. Throughout this project his contributions included front end design of the Featured Artist Page as well as the Home Page. The most challenging part being the slideshow implemented in the Featured Artist and Home pages.

The Featured Artist Page was a lot of fun to code, most of the coding behind it was rather simple, so Max was able to focus more on the slideshow and styling of the page itself. The page is frameworked only by percentages allowing for the page to minimize to a smartphone compatible size. The slideshow proved to be difficult to implement both a timed change in photos and the ability to click through simultaneously. The reason Max wanted this ability is because of the captions on the photos. This ended up not being quite in the scope of the project but it is something to look forward to changing in the future. In addition to potential future changes Max would've like to add an easier way for admin to change the featured band, maybe a form to fill out for admin so that the page updates automatically rather than the alternative, which is to change the coding of the page on each part that mentions a specific band. This idea would also be added to the Home Page.

The Home Page was a lot of restyling for Max. A lot of different ideas were made on how to finalize the look of the page, but the final product of the page ended up being the best. The slideshow is also implemented on the Home Page, but Max decided against even trying to implement a timer with the ability to click through; this was because there seemed to be no point with no captions on any of the photos. Max did however want to add the admin ability to upload photos to the slideshow instead of having to add a new slide in the code

	every time a new photo was wanted. Additionally, Max wanted to add another admin feature for previously featured bands.
	Bridget Wermers is a senior in computer science, with a focus on web programming. After graduation she plans to travel the world and build small businesses websites. Throughout this project her contributions included the homepage content and design as well as header and footer and implementing the photo share framework. She also did the back-end work for the featured artist form to submit to. The photoshare framework was a challenging part, and did not reach the standard we were striving for, but the implementation currently allows users to upload a photo to the gallery and the gallery goes through each photo and displays them with a 2 second transition between them. When a photo is uploaded it gets stored into our file system and the gallery goes through the uploads folder in order to show each. For organization and styling purposes we would have liked to implement this multiple times in order to create separate albums and allow users to create albums also if one does not already exist for the event. She also worked on getting the form submission data to store into the database. This was not initially a requirement for our project as the form sent an email to the admins, who would then update the page on a weekly basis. With the information getting stored into a database we can fill in the featured artist page through variables that are queried from the database. This will reduce admin time spent and increase the flow of our site. It also allows for longer storage of information, preventing repeat artist features, simply changing the featured artist and using prior information for the previously featured section on our home page. She was able to get the data to store to the database but ran out of time to query this into the featured artist page. Lastly Bridget was a key participant in merging content together from each of our branches using Git and WebStorm. She was able to solve merge conflicts and push the updated site to master so that each developer had the most up to date code. Through doing this she also tested the site thoroughly to make sure the integration went well and did not break anything.



Ethan Miller is a senior in Computer Science. His interests include snowboarding, fly fishing, whitewater rafting, backpacking, as well as coding.

After college he plans on finding a job in software engineering. For this website he worked on the featured artist page and the event calendar page. This included implementing the embedded Google Calendar API, the two form submissions on both pages, and added functionality for the form submission to email the data using a POST request. Much of this project started off of his LAMP stack assignment because he used this assignment as an opportunity to get a jump start on the actual webpage.

Most of the work was started after the Github repository was created in early October. Immediately after uploading the LAMP stack on Github, the group focused on getting a well styled website with some of the functionality for the presentation. For this he had to make sure the website had a working calendar as well as some content on the featured artist page.

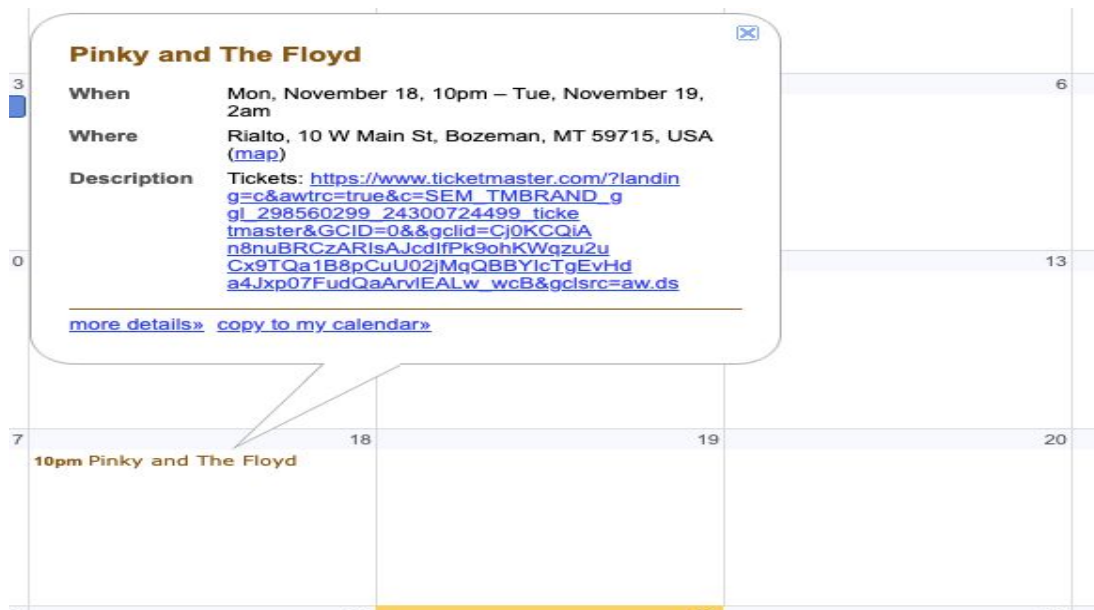
After the presentation he spent most of his time added the two form submissions inside a modal and making sure the POST request was fully functional. For version two he hopes to figure out a way to style the calendar to match the websites theme.

Tools to Make Our Website Work

In order to create our website we knew that we wanted 4 pages: Home (index) page, Calendar, Featured Artist, and Photo Share. In order to accomplish this, the design of the website was built using PHP and HTML and the functionality of the website was built using Javascript, Bootstrap, and Google Calendar API. The back-end of our site includes MySQL for database storage and querying for information.

The calendar page is a page that displays a month to month calendar where the user can see all of the upcoming events in that month. The user can not add events but they can submit a recommendation in a form that gets reviewed by an admin and the event would then be added. The calendar was implemented using the Google Calendar API. Our website contains an Iframe of an embedded Google Calendar that is rendered every time the page is loaded. This allowed all of the event handling to be controlled through the

admins Google account. The form submission for an event request was built using Bootstrap and its functionality implemented using PHP. When a user submits a recommended event the data would then be processed as a POST request and the admin is emailed the contents of the form.



Calander with event open showing time, location and a ticket link

The calendar form is handled by formatting the submitted data into an email which gets sent to the admin through a POST request, notifying them that a new event was suggested. In the next version of implementation this form will also store into a SQL database in order to minimize the workload of admins by automatically updating the calendar instead of manually updating it upon each request. This form asks the user to provide their name, email, band name for their event recommendation, event date, event start time, event end time, and a link to purchase tickets for that event.

Name

Email address

Band Name

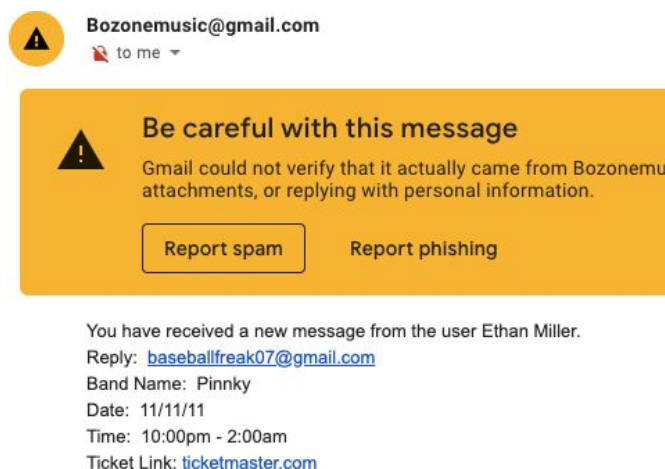
Event Date

Start Time

End Time

Link to Ticket

Event Submission Form



Email that is sent to the admin

The featured artist page is rather simple. It was coded for smart phones initially, which actually proved to be much easier when it came to the slideshow. To start from the top, the video is run through a built-in html tag called iframe. This allows us to slap in a link from youtube and have it fit right into the page. Next we have a little tag with an explanation of the band, which is just an h3 tag with styling for smartphone compatibility and general looks. Below the tag is a button to visit the band's website, this is through an a tag with an href and some styling to match the nav bar for consistency. Finally we have the product of long struggling on Max's part. The slideshow. The slideshow was not difficult at all to implement at first. Initially it was written to allow the user to click through photos. As a team we decided to steer in the direction of running it on a timer so as to draw the eye of the user. We did this because we were worried that users may not even notice that there are extra slides otherwise. Changing the slideshow to work on a timer was also very easy, just slightly different javascript coding. The difficult part from all of this was a failed attempt to make the slideshow work on a timer while allowing the user to both pause and skip through photos. Eventually we decided to cut our losses and make what we already had look good.

Finally we have the form for the featured artist recommendation, which works a bit differently than the calendar event form because we changed the implementation from initially just sending an email to the admin to storing the information into a SQL database and continuing to send the email. This was done using the `querymysql()` function and an `INSERT INTO` from the demolamp. In order to pull information out of the database and use it for the featured artist page a `SELECT FROM` query would be made. In the scope of this project we only got the data to store and will be working on getting it to use the data next phase. Since the database does not store photos, it would store a path to the photo in the file structure which will create a link and display the photos in the slider of the featured artist page.



A screenshot of a database table interface. At the top left, there is a '+ Options' dropdown menu and a navigation bar with left, home, and right arrows. The table has four columns: 'id', 'name', 'band', and 'about'. There are four rows of data, each with a checkbox, an 'Edit' icon (pencil), a 'Copy' icon (two overlapping documents), and a 'Delete' icon (red circle with a minus sign). The data rows are as follows:

	id	name	band	about
☐	1	Bridget Wermers	Cole and the Thornes	Cole has been playing music in Bozeman for 6 years...
☐	2	Bethany Cook	Kelly Nicholson Band	The Kelly Band originated out of Bozeman a little ...
☐	3	Roger Platt	Dead Sky	Dead Sky is a brand new Grateful Dead cover band, ...
☐	4	Mike Gooten	M.O.T.H.	Moth is a local favorite rock band, the name stand...

Screenshot from the database the table the featured artist form saves data to.

The photo share is built with HTML, PHP and javascript. The gallery itself and the upload form where it allows you to select the photo you want to upload is plain HTML, using a div to display the gallery and a form tag which wraps the label and input. The submit button has type='submit' activating the javascript which adds the photo to our file structure. The javascript which saves the photo is a series of if and switch statements to check the photo and the move_uploaded_file function. Once the photo lives in the uploads folder, a for each loop goes through the folder and displays the photos into the designated html div on a 2 second timer by using the carousel.js built in script.

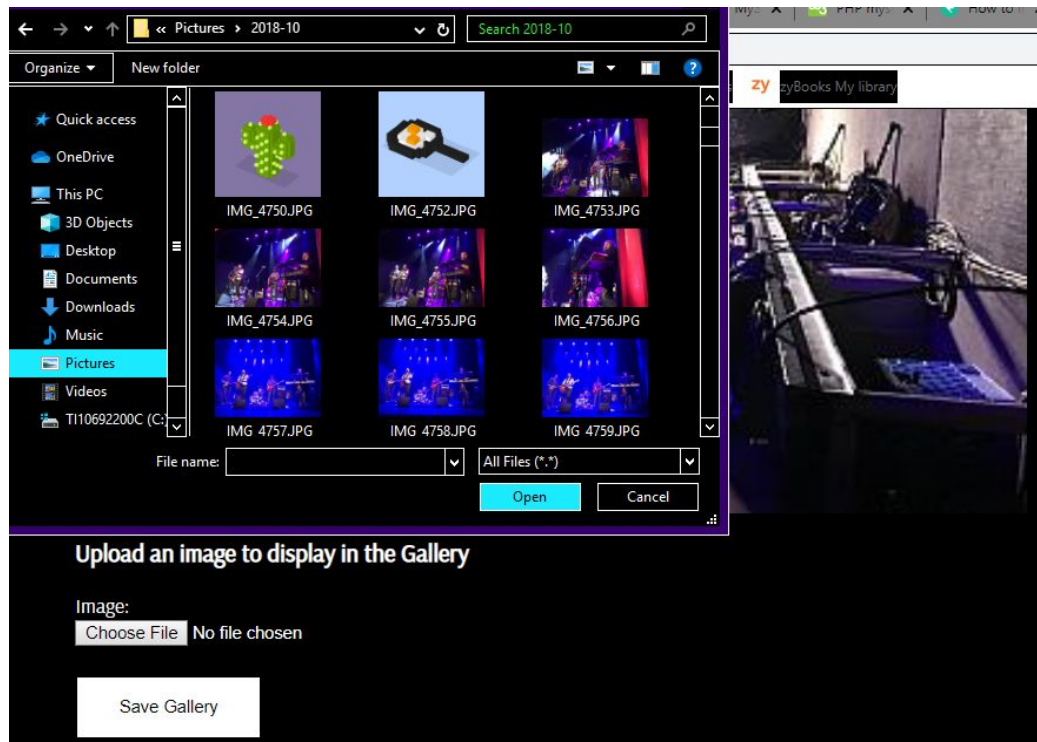


Image upload, choosing a file off computer to add to gallery

The entire site is styled with a single styling sheet which helps to maintain consistency across the pages in reference to fonts, colors and buttons. We also decided to take advantage of Bootstrap's styling sheets and scripting for the modals due to its professional and clean design. Since the styling is done using percentages for width and height it maintains the look on different sized screens including tablets and phones.

Conclusion

This project certainly was an eye-opener into the field of web-development, learning how to bite off only what you can chew and not getting caught up too much in the excitement of planning was certainly a focal point of this project. We, as a team, did a great

job of narrowing our scope, but there were still some factors that we were a little ambitious with. While this project in many ways was a success there were a few things that we would like to add/change in the future.

For the google calendar page, Ethan would like to be able to style the calendar better to match the websites theme. Although not vital to the functionality of the website, we feel as if this would make the calendar more appealing to look at and attract bands and users to our page. Adding style to the calendar proved to be difficult because the calendar was not styled by our css but rather was placed in an embedded Iframe. This meant that we were limited to the click option styling that google offers.

On the featured band page there were a few things that Max would have liked to add. The biggest challenge, mentioned before, was the slideshow. This was a key feature of the page that we wanted from the beginning. While Max was able to implement a successful slideshow on the page it is limited to just running on a timer, rather than having the user capability to change what slide they were on. This could cause aggravation to the user considering each photo is captioned with a short description and a link. At first the slide show ran on a 2 second timer, like on the photo share page. The problem with this was that it wouldn't allow the user enough time to read the caption, much less decide whether or not they would want to click on the link next to the caption. Max solved this problem by extending the timer to 8 seconds. However in the occurrence that the user isn't able to read it in time, or just hasn't decided whether or not to click on the link they will have to wait another 16 seconds to return to the image they were looking at. Other than this change Max is all in all excited about the page and how it turned out.

The next phase for Bridget includes splitting the photo share up into albums, allowing users to upload a new album or add to a specific album based on the show the photos relate to. She also would like to add a whole page which would be a place for artists to meet other artists, for purposes such as sitting in on shows, needing a replacement band member, or to integrate bands that would flow well together for a show. Overall the project scope did not allow for this, but the concept fits perfectly with the objective of our site. There are also some implementation changes including storing all data into the database and pulling it directly out for display, avoiding the use of PHP and increasing the specificity of the form questions. While there are some updates that could be made, we successfully produced a site that allows user interaction within the music community, and this raises a lot of excitement.

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