



Music Matters

Cycle 3 Report

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Submitted in partial fulfillment of the requirements for COMP 4710 Senior Design to the
Department of Computer Science and Software Engineering, Samuel Ginn College of
Engineering, Auburn University

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COMP 4710
Senior Design Project
Fall 2020
Group 1

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Executive Summary (System Metaphor)

Completed by Ford Luttrell

To design and create an application that allows users the ability to input musical artists' names, information, and performance venue into a calendar and sends out a report via email at the end of each month. This is essentially a booking system that sends invoices through email once a month.

Project Introduction and Cycle Intent

Completed by Ford Luttrell

Previous Development

During the architectural spike and Cycle 1 we focused on establishing an effective form of communication, loading data bases, and learning React Native. We also did extensive research on Vertex42 and how to input it into the application. This proved to be difficult because of formatting problems. In Cycle 2 we were more focused on the programming aspect of our application. We started changing the code for the email format and added the PDF documents.

Intent this Cycle

Our intent this cycle was to finalize the application and meet all the guidelines laid out by our sponsor. After several meetings with Mike Moody we came up with a new format for the application. We were asked to add two new buttons for him to access from the home screen so we focused on that. We also were asked to change the wording of some of the template PDF's. We were also responsible for getting his new account setup through TestFlight and making sure the application was accessible from his Iphone.

User Stories

Completed by Xunming Zhang

Installing and Feedback

User Story: As developers, we finished installing the application and metted with Mike.

Description: After first meeting with our sponsor, he mentioned a few things that he really wanted to change in the application in the rest cycle. Our members started to change those things he asked.

Hours:

Total Planned: 15 hours

Planned this cycle: 15 hours

Total Actual: 15 hours

Actual this cycle: 15 hours

Coder: Team

Testing: Team

Reviewers: Team

Status: Completed

Change Design

User Story: As a developer, I want to change the graphic design of application

Description: The very first thing should be changed is the design which includes the layout of the home page. The home page should be added two more buttons. Thus, the home page would be Venue, Clients, Documents and Bookings.

Hours:

Total Planned: 15 hours

Planned this cycle: 15 hours

Total Actual: 15 hours

Actual this cycle: 15 hours

Coder: Jungpyo Hong

Testing: Jungpyo Hong

Reviewers: Entire Team

Status: Completed

Change Subject Line

User Story: As a developer, I want to change the subject line of confirmation and invoice in react native

Description: The subject line and invoice changing are the important parts as well. I am using react native to fix it. There is a problem that it is hard to find the right format Mike wants without alerting PDF.

Hours:

Total Planned: 30 hours

Planned this cycle: 30 hours

Total Actual: 18 hours

Actual this cycle: 18 hours

Coder: Ford Luttrell

Testing: Ford Luttrell

Reviewers: Team

Status: Completed

Change Font

User Story: As a developer, I want to change the font of application

Description: Changing the font is not a very easy part. It is a little bit hard to understand the HOOK using react native.

Hours:

Total Planned: 5 hours

Planned this cycle: 5 hours

Total Actual: 5 hours

Actual this cycle: 5 hours

Coder: Jungpyo Hong

Testing: Team

Reviewers: Team

Status: Discarded

Change Email Body

User Story: As a developer, I want to change email body

Description: Our sponsor Mike wants the strict body of the application to be PDF attachment, he prefers everything on the application could be very clear and direct.

Hours:

Total Planned: 10 hours

Planned this cycle: 10 hours

Total Actual: 10 hours

Actual this cycle: 10 hours

Coder: Ford Luttrell

Testing: Team

Reviewers: Team

Status: Completed

Design Decisions

Completed by Ford Luttrell

Our sponsor requested that we add the finishing touches to an application that has been worked on for three semesters now. Before this application he was forced to input customers' information into a small calendar that proved to be very time consuming and strenuous to our sponsor. This application is a design to make booking easier and quicker for him. This will allow him to send all the information to his staff without having to do it individually like he normally does. On a daily basis he books musical artists for venues and is required to send out invoices once a month individually to said artists. This application will automatically create and send invoices to his customers, saving our sponsor a lot of time and work. He has given us several guidelines for what needs to be inputted in order to create the invoice and booking system. This information includes name, email, address, city, state, zip code, and time of performance. He wants individual text boxes for each of these categories so that he can easily go into the application and input the information at a moment's notice. This is where our program will store all the information and save it into a list and calendar. This calendar will allow our sponsor the ability to view individual dates and what performers are performing at what venues and at what time. Our sponsor requested that from the list we created he can quickly send an email invoice at the end of the month to all his performers. Our sponsor has an Iphone so he wanted us to be sure that this application would work for his phone for when he is on the go and unable to access a laptop. We also plan on making it available to him on his laptop because he was worried about his screen being "too small to read".

As a group we decided the best way for us to communicate is through Groupme. We have had several Zoom meetings with one another and with our sponsor to make sure we have an understanding of exactly what our sponsor needed. In order for our group to have

access to all parts of the application we were given the email and passwords to the app along with a github that was shared with all of us and our sponsor. We also work together through a shared Google Drive so that we can all work at the same time and correct each other. Google Drive will be very important through our design process and everything is shared through it.

Our team was handed down code from previous semesters and we spent time going over and reading to be sure we fully understood what previous groups did before us. We programming on Visual Studio and we are collaborating through Github with past groups work and with one another. The past groups started the application by programming in React JS Language so we will be continuing in that. None of our group members have used this language so we have been researching, studying, and practicing this language so that we are capable of completing our sponsors request. We found that this language is pretty similar to past languages we studied, but we have had to learn a few things. The framework we are using is React Native which we had never used before so we also had to do a lot of research on that to fully understand what we were working with. Our sponsor is not familiar with any programming languages or how the process of applications work so he has given us free reign on the application development process as long as we meet certain guidelines. Since he doesn't know about the development process we have really relied on our contact with past groups to understand where the code for this application was located and how to access it. This was very difficult at first, but we finally found a way to access the information with the help of several past students. We then ran into problems with passwords because our sponsor was unable to remember some of the passwords, but we found a way to reset them and begin accessing and working on the application. We now have new access codes and a github repository so that nothing will be lost and everything will be organized all in one place.

We will look to change a few things from past groups designs. We've also had several meetings with our sponsors and he has told us exactly what he wants and we are all on the same page in that regard. In cycle 2 we changed the individual booking invoices for the app for the subject line so that it will send automatically with a subject to the customer. We also focus on changing the daily confirmation email for the artist. This was fixed during cycle 2 after a lot of hard work and coding. We found a way to fix the subject line that caused Mike Moody trouble in the past. He told us that he has run into problems with the subject line for both of these. The email worked properly but our sponsor had to go in and individually insert a subject for each email, which he did not want to do. This fix will prove to be a huge time saver for our sponsor. We also need to fix the subject line for cancellation emails. Past groups were unable to figure out a way to fix these problems so we are happy to have found a way to get this to work.

We also were given a list of problems that past groups had and were unable to fix before graduating the class. The application would generate some invoices, but wouldn't always send them to the right email address which needs to be changed immediately. He also wanted holidays built into the calendar and college football games since he is an Auburn fan. Dennis worked on this part in the Vertex42 calendar format. This has been updated for the 2020 calendar year and since games were changed due to the Coronavirus it has been altered. Our sponsor also wanted when a venue is changed in the application that it will create a new folder in his google drive so that he can easily access it when he checks the drive.

In cycle 3, most of our decisions were laid out for us by templates so we had to find a way to meet his needs. In the documents section you will find what he sent us and how he wanted the booking invoice and artist confirmations to look. This needed to be altered from what we did in cycle 2. He was happy with the improvements we made, but there were still a few errors in the wording that needed to be fixed in the code. Also, during cycle 3 we were

tasked with improving the home screen. We met with Mike Moody and we came to a decision of what the new home screen should look like for the user. We previously had 2 buttons in the application that would lead to a calendar and venue. We decided it would be best if Mike could access every aspect of the app easily through the home page. We had to add a documents button and a clients button. This forced us to change the paths of the buttons in the coding and create 2 pages that the buttons would lead to. This proved to be very visually pleasing for the app and gave it a better functionality for Mike. After testing the app on zoom with our sponsor he was very happy with the new look, functionality, effectiveness of the application.

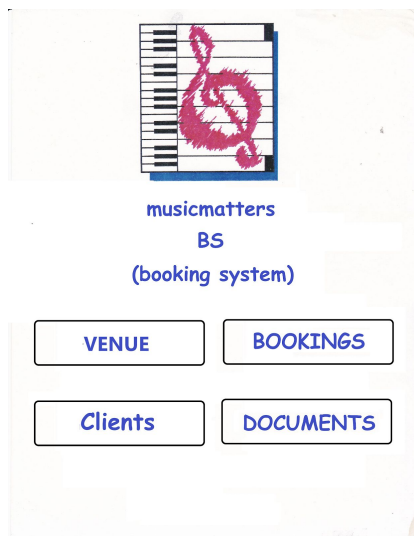
During cycle 3, we were also tasked with getting the application onto our sponsors phone. This took a good amount of time researching and testing. We finally came to a decision that the best way to do this would be to create a TestFlight account and load the application into the account for him to easily access on his phone. First, we created a testing account so that we were sure that it would work before we got Mike involved in order to not waste his time. We loaded the app and tested all of our new buttons to make sure everything was running smoothly. Next, we invited Mike to a Zoom call and gave him step by step instructions on how to create an account and how to get the app working. We then ran an entire test of the app with him at the Zoom meeting and he was very pleased with our results. Last, we submitted the new application for review by Apple in order for it to be able to download via the app store. This is still pending and we are waiting for the final approval before it can be put on his phone in a more permanent manner.

Design documentation

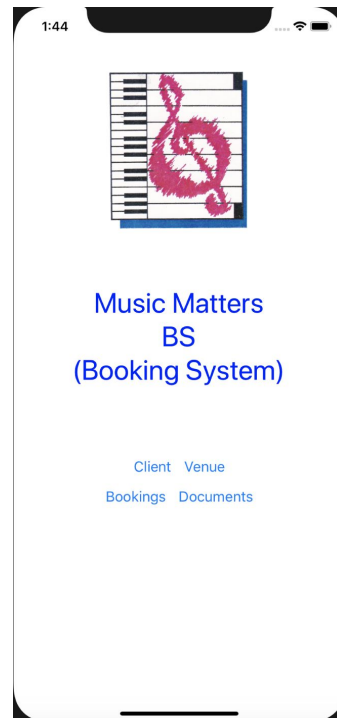
Completed by Jungpyo Hong

In this cycle, we changed the design of the main page in this application.

Our client, Mike Mooty wanted this format of design, therefore we changed to this



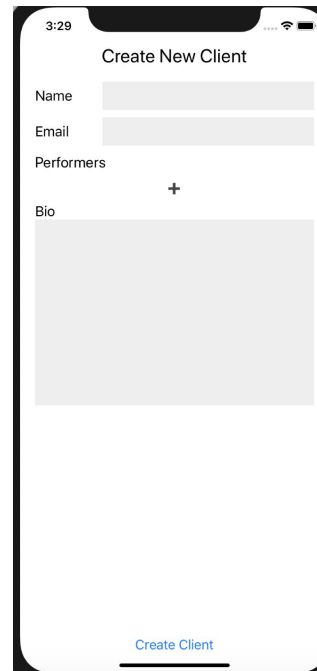
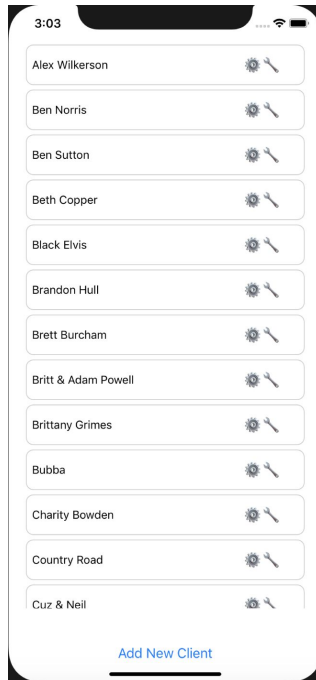
This is expected



This is actual design of app

Below is a list of each function and how it worked when the user clicked the button.

1. Client



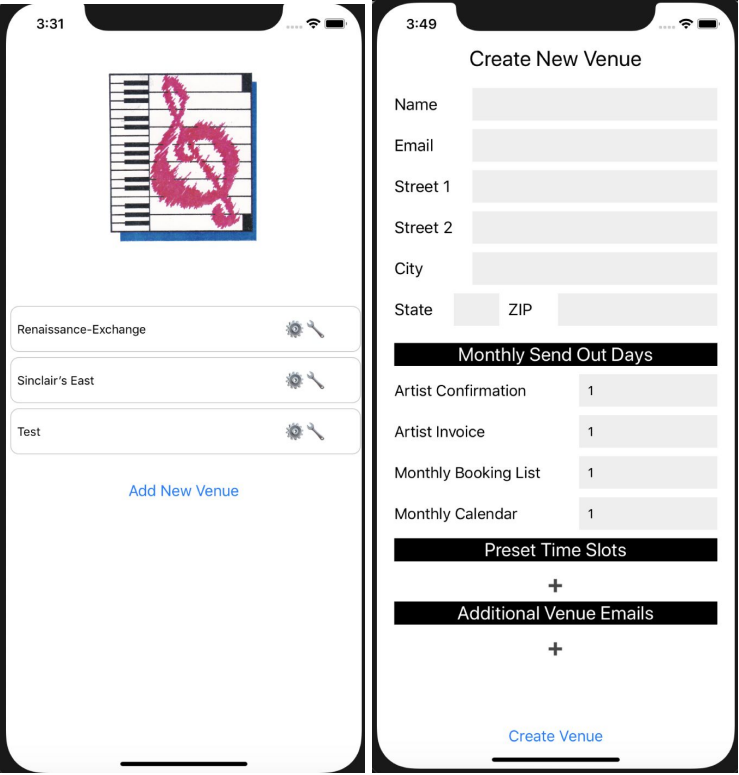
When the user clicked the Client menu, the user can see the list of clients that we added into the database(firebase). Also the user can add new client with 'Add New Client' button.

2.Booking

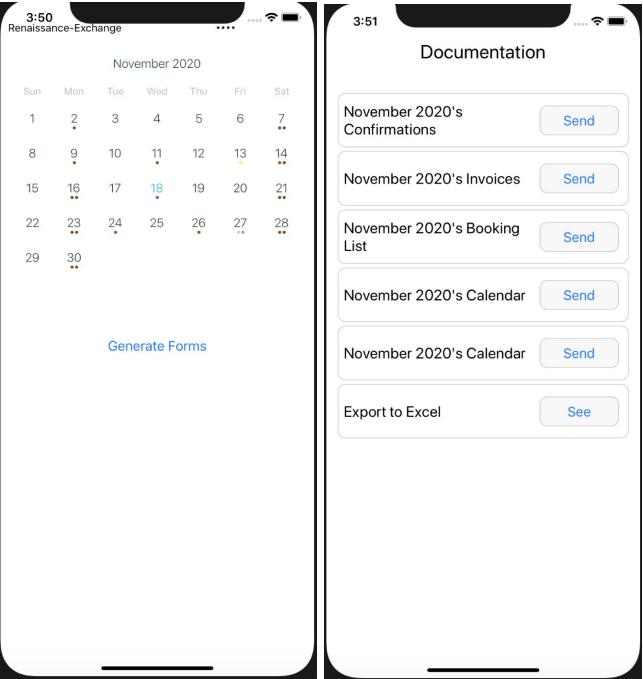
The booking part can currently be accessed through the venue button.

3. Venue

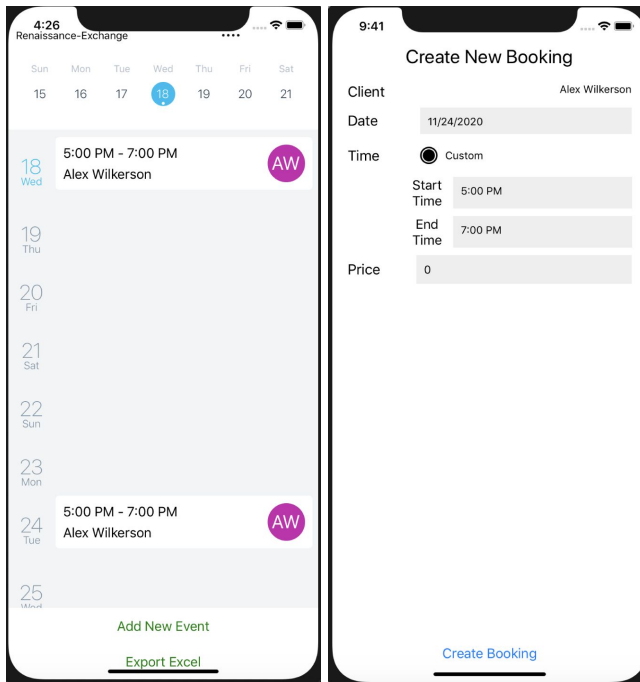
If the user clicks the venue button, the user can see the list of venues that are already created in the database, also the user can add new venue with 'Add New Venue' button.



If a user clicks a certain venue, then the user can see this kind of page in our application. Also, the user can use the 'Generate Forms' button on this page.



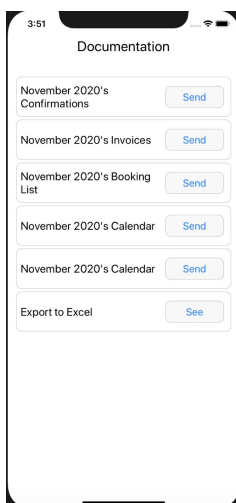
When the user clicks a certain date in the calendar, the user will see this page in the app.



On this page, users can create new bookings on a certain date that the user selected. When a user creates a new event, then the user can export calendar, confirmation documents, invoices based on events. It is saved in Mike Mooty's Google Drive.

4. Documents

The Documents button is currently accessed through the venue button. The Documents page in venue currently looks like this.



Risk Mitigation

Completed by Zack Smith

The risks that we have to worry about is for our sponsor to have an app that doesn't work. This could be that the app doesn't send proper invoices to performers and venues leading to money problems for our sponsor. To avoid these problems we must test an extensive amount to ensure that the app will function as intended in all scenarios.

Testing plan

Completed by Zack Smith

We will create extensive user tests to run on the system to insure proper functionality. Then run tests on the running prototype with the sponsor to ensure that he is satisfied with functionality and look of said functions.

#	Required Action	Expected Results	✓
1	Installing and Feedback	Mike will have a working updated version of the app to test and get used to up.	✓
2	Change Design	Change the graphical design of the app to something mike will find appealing.	✓
3	Change Subject Line	Fix the subject lines of emails to make Mike's job easier.	✓
4	Change Font	Fix the fonts of the app to something more appealing to Mike.	✓
5	Change Email Body	Fix the body of the email to meet Mike's standards.	✓

Management plan

Completed by Zack Smith

In this cycle, our team was focused on finalizing the app and getting it to Mike to test. Our sponsor had some specific details that he wanted improved and fixed. A few of the improvements being the main page, rewording of created calendar, and structure of emails.

Task Assignments

Each team member worked as a group through the beginning of this project. We met in the lab and over zoom in order to make sure we were all on the same page. We also worked in group me and through google docs for the report and demonstration. This cycle we met with Mike Moody and discussed which members of the team would do which assignments. Below are the tasks that each group member worked on.

FORD LUTTRELL: Fixing problems with email subject line and main structure.

JUNGPYO HONG: Redesigned the main page and fixed creation of documents needed for emails.

ZACK SMITH: Responsible for getting the application redownloaded on Mike's Phone.

XUNMING ZHANG: Responsible for getting the application redownloaded on Mike's Phone.

Development Schedule

We worked on the beginning test cases that Mike Moody gave us. He laid out a task for each week and it helped a lot with developing our work schedule.

Lessons Learned

Completed by Xunming Zhang

During the entire semester, the first thing we learned in our group is new languages. We have become more familiar with some new languages that we never learned before, such as React Native, Expo, and Node.js. For example, Node.js is a platform based on chrome JavaScript runtime. Node.js is an event driven I/O server-side JavaScript environment, based on Google's V8 engine which can execute JavaScript very fast and perform very well. Learning new languages is not very easy, some languages are kind of difficult. But we can get ideas and information from previous groups.

The next thing we learned is working as a team. In our project, our sponsor Mike Moody is "The Music Matter Captain", who guides us through the work and what he wants the application to be. The work cannot be done by just one person, our team members should work together for the job, each one has their own job to deal with and then we meet together and report our progress. Then we should go back and work by ourselves. It doesn't mean we don't work together, it just means that we should finish our own job independently thinking and working on our own.

Last but not least, communication. We need to talk to each other about what we have done and report our progress. importantly, we need to meet our sponsor to get his ideas and thoughts on what we should be working on throughout the development process. Our sponsor has no experience in coding, but he knows what the application is. Thus, he needs us to get ideas from him and change it to what he likes.

Appendix A

A.1 Status report

Completed by Xunming Zhang

Cycle Report 3-1

Senior Design Status Report (Page 1)									
Project Name:		Music Matters							
Team Members:		Ford Luttrell, Jungpyo Hong(Dennis), Zack Smith, Xunming Zhang							
Date:		11/5/20		Cycle:		Cycle 3 Status Report 1			
System Metaphor:		To design and create an application that allows users the ability to input musical artists' names, information, and performance venue into a calendar and sends out a report via email at the end of the month. This is essentially a booking system that sends invoices through email once a month.							
Cycle Intent:		Our team's intent for this cycle is to add the finishing touches to an already working application that is available through the app store. We plan to further develop the app, while focusing on the invoice emails that will be sent to staff members once a month. We intend to improve code already created and finish the last leg of this application's functionality.							
				Planned			Actual		
#	User Story	Cycle planned for completion	Total planned hours	Planned hours this cycle	Status	Actual hours this cycle	Total hours		
1	As a developer,export the artist confirmation,invoice,booking list	1	15	15	Completed	15	10		
2	AS a developer, export the calendar as pdf format	1	20	20	Completed	15	15		
3	As a developer, finished installing the project	1	5	5	Completed	19	19		
4	As a developer, create a booking list template for email	2	10	10	Completed	10	10		
5	As a developer, create a booking list template format	2	10	10	Completed	5	5		
Planned Total			60	60	Actual Total	64	64		
<div></div>									
<div> <div>Status Report Page 1</div> <div>Page 2</div> <div>Jungpyo Hong</div> <div>FordLuttrell</div> <div>Zack Smith</div> <div>Xumming Zhang</div> <div>+</div> </div>									

Cycle Report 3-2

A	B	C	D	E	F	G	H	I	J	K
Senior Design Status Report (Page 1)										
Project Name:		Music Matters								
Team Members:		Ford Luttrell, Jungpyo Hong(Dennis), Zack Smith, Xunming Zhang								
Date:		11/12/20			Cycle:		Cycle 3 Status Report 2			
System Metaphor:		To design and create an application that allows users the ability to input musical artists' names, information, and performance venue into a calendar and sends out a report via email at the end of the month. This is essentially a booking system that sends invoices through email once a month.								
Cycle Intent:		Our team's intent for this cycle is to add the finishing touches to an already working application that is available through the app store. We plan to further develop the app, while focusing on the invoice emails that will be sent to staff members once a month. We intend to improve code already created and finish the last leg of this application's functionality.								
					Planned			Actual		
#	User Story		Cycle planned for completion	Total planned hours	Planned hours this cycle	Status	Actual hours this cycle	Total hours		
1	As a developer,change the graphic design of application		2	15	15	In Review	15	15		
2	AS a developer, change the subject line of confirmation and invoice		2	20	20	Completed	15	15		
3	As a developer, change the font of application		2	5	5	Discarded	5	5		
4	As a developer, change email body		2	10	10	completed	10	10		
5	As a developer, change subject line in react native		2	10	10	completed	3	3		
			Planned Total	60	60	Actual Total	48	48		

A.2 Meeting Minutes

Completed by Jungpyo Hong

11/2/2020

- Physical meeting in Shelby Lab
 - Working on coding
- Participant : Jungpyo Hong, Ford Luttrell

Total Hours : 3

11/12/2020

- Meeting with client Mike Mooty
 - We discussed about design
- Participant : Jungpyo Hong, Ford Luttrell, Zack Smith, Xunming Zhang

Total Hours : 2

11/16/2020

- Meeting with client Mike Mooty and discuss about installing app in Mike's personal computer
 - Install final version of application
- Participant : Jungpyo Hong, Ford Luttrell

Total Hours : 5

11/23/2020

- Final meeting with Client Mike Mooty

Participant : Jungpyo Hong, Ford Luttrell, Zack Smith, Xunming Zhang

Total Hours : 1

A.3 Correspondence

Completed by Xumming Zhang

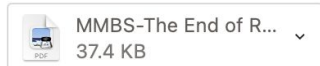
[EXTERNAL]Fwd: Exchange Artist Co...	11/13/20
NOTICE: This email originated from Gmail. Pleas...	
Music Matters	
[EXTERNAL]Fwd: Exchange Booking I...	11/13/20
NOTICE: This email originated from Gmail. Pleas...	
Music Matters	
[EXTERNAL]Fwd: Exchange Booking I...	11/13/20
NOTICE: This email originated from Gmail. Pleas...	
Music Matters	
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NOTICE: This email originated from Gmail. Pleas...	
Music Matters	
[EXTERNAL]Fwd: Exchange Calendar...	11/13/20
NOTICE: This email originated from Gmail. Pleas...	
Music Matters	
[EXTERNAL]Fwd: Exchange Booking I...	11/13/20
NOTICE: This email originated from Gmail. Pleas...	
Music Matters	
[EXTERNAL]Fwd: Exchange Artist Co...	11/13/20
NOTICE: This email originated from Gmail. Pleas...	
Music Matters	
[EXTERNAL]Fwd: Booking List - Octo...	11/13/20
NOTICE: This email originated from Gmail. Pleas...	
Music Matters	



Music...

Friday, November 13, 2020 at 10:24 PM

To: Music Matters; [+4 more](#)



[Download All](#)

[Preview All](#)

NOTICE: This email originated from Gmail. Please report any phishing activity to phishing@auburn.edu.

Essential Documents and Templates

February 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18 3:00 PM-5:00 PM Alex Wilkerson	19 8:35 PM-8:55 PM Alex Wilkerson	20 3:00 PM-5:00 PM Alex Wilkerson	21	22
23	24	25	26	27	28	29

RENAISSANCE/EXCHANGE MONTGOMERY, AL

LIVE PERFORMANCE CONTRACT/CONFIRMATION

MUSICMATTERSBOOKINGS.COM

Joshua Stephen Ward artist/performers agree to perform live music at The Renaissance /Exchange Bar, 201 Tallapoosa St., Montgomery, AL 36104 on the evening of Sat., October 31st, 2020 between the listed hours of 6:00pm to 8:00pm Renaissance /Exchange Bar In Montgomery, AL. agrees to pay the above named artists \$150.00 and said payment to be paid upon completion of this performance.

If for reasons, beyond your control, you are unable to make your scheduled confirmed performance time and date; It is our expectation that you will contact Mike Moody at [619-307-5866](tel:619-307-5866). If he cannot be reached please call James Boheim [334-224-3814](tel:334-224-3814). This should be done at the earliest possible time, but no later than four hours prior to your set. Thank you in advance for complying to this request. MusicMattersBookings.com and The Renaissance/Exchange.

RENAISSANCE/EXCHANGE MONTGOMERY, AL
LIVE PERFORMANCE CONTRACT/CONFIRMATION
INVOICE

MUSICMATTERSBOOKINGS.COM

Joshua Stephen Ward artist/performers agree to perform live music at The Renaissance /Exchange Bar, 201 Tallapoosa St., Montgomery, AL 36104 on the evening of Sat., October 31st, 2020 between the listed hours of 6:00pm to 8:00pm Renaissance /Exchange Bar In Montgomery, AL. agrees to pay the above named artists \$150.00 and said payment to be paid upon completion of this performance.

RENAISSANCE/EXCHANGE MONTGOMERY, AL
LIVE PERFORMANCE CONTRACT/CONFIRMATION
INVOICE

MUSICMATTERSBOOKINGS.COM

Kris Anderson artist/performers agree to perform live music at The Renaissance /Exchange Bar, 201 Tallapoosa St., Montgomery, AL 36104 on the evening of Sun., March 1st, 2020 between the listed hours of 5:00pm to 7:30pm Renaissance /Exchange Bar In Montgomery, AL. agrees to pay the above named artists \$125.00 and said payment to be paid upon completion of this performance.

**The Exchange Live Music Bookings
by Date
March 2020**

Artist	Gig Time	Compensation
1-Kris Anderson	5:00 to 7:30	\$125.00
1-Garrett Pittman	7:30 to 10:00	\$125.00
2-Richard Murray	5:00 to 7:30	\$125.00
2-Jim Geiger & Andy Norman	7:30 to 10:00	\$175.00
3-Lucky	5:00 to 7:30	\$125.00
3-Kurt McKinney & Friends	7:30 to 10:00	\$175.00
4-Tony Brook	5:00 to 7:30	\$125.00
4-Trest Richerson	7:30 to 10:00	\$125.00
5-Beth Cooper	5:00 to 7:30	\$125.00
5-Terrance Baldwin & Friends	7:30 to 10:00	\$250.00
6-Scott Grant	5:00 to 8:00	\$150.00
6-The Marvtones	8:00 to 11:00	\$300.00
7-Frank Jordon Duo	5:00 to 8:00	\$300.00
7-Live@Five	8:00 to 11:00	\$300.00
8-Marvin Taylor	5:00 to 7:30	\$125.00
8-Patrick Cross	7:30 to 10:00	\$125.00
9-Joe Breckenridge	5:00 to 7:30	\$125.00
9-Guitar Slim	7:30 to 10:00	\$250.00
10-Rachael Wilson	5:00 to 7:30	\$125.00
10-John Bull & Ed Pickett	7:30 to 10:00	\$250.00
11-Lisa Busler	5:00 to 7:30	\$125.00
11-In Kahootz	7:30 to 10:00	\$250.00
12-Hannah DeMello	5:00 to 7:30	\$125.00
12-Neil Young	7:30 to 10:00	\$125.00
13-Joshua Stephen Ward	5:00 to 8:00	\$150.00
13-The Joe Jack Band	8:00 to 11:00	\$300.00
14-Steven McCollough	5:00 to 8:00	\$150.00
14-Jimbo & Larry	8:00 to 11:00	\$300.00
15-Kat Deal	5:00 to 7:30	\$125.00
15-Marv & Friends	7:30 to 10:00	\$180.00
16-Ben Norris	5:00 to 7:30	\$125.00

**The Exchange Live Music Bookings
by Date
March 2020**

Artist	Gig Time	Compensation
17-Dennis Pugh Jr.	5:00 to 7:30	\$125.00
17-The Flanks	7:30 to 10:00	\$250.00
18-Richard Murray	5:00 to 7:30	\$125.00
18-Rick Carter & Friends	7:30 to 10:00	\$250.00
19-Chris Eiland&TheHiredGuns	8:00 to 11:00	\$300.00
19-Zach Austin	7:30 to 10:00	\$125.00
20-Black Elvis	5:00 to 8:00	\$150.00
20-Tommy & Kay Peters	8:00 to 11:00	\$300.00
21-Jim Geiger & Amy Clay	5:00 to 8:00	\$300.00
21-Kurt McKinney & Friends	8:00 to 11:00	\$300.00
22-Bubba	5:00 to 7:30	\$125.00
22-C.T.T.S.	7:30 to 10:00	\$125.00
23-Joe Breckenridge	5:00 to 7:30	\$125.00
23-Joshua Stephen Ward	7:30 to 10:00	\$125.00
24-Lucky	5:00 to 7:30	\$125.00
24-TBM	7:30 to 10:00	\$125.00
25-Lucky Jones	5:00 to 7:30	\$125.00
25 Neil Young	7:30 to 10:00	\$125.00
26-Hannah DeMello	5:00 to 7:30	\$125.00
26-Beth Cooper	7:30 to 10:00	\$175.00
27-Rob Thornhill	5:00 to 8:00	\$150.00
27-Jimbo & Larry	8:00 to 11:00	\$300.00
28-Sтивен McCollough	5:00 to 8:00	\$150.00
28-Rachael Wilson & Hudson	8:00 to 11:00	\$300.00
29-Lisa Busler	5:00 to 8:00	\$150.00
29-Black Elvis	7:30 to 10:00	\$125.00
30-Tony Brook	5:00 to 7:30	\$125.00
30-Patrick Cross	7:30 to 10:00	\$125.00
31-Kat Deal	5:00 to 7:30	\$125.00
31-Scott Grant	7:30 to 10:00	\$125.00

MARCH 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 5:00 to 7:30 Kris Anderson 7:30 to 10:00 Garrett Pittman	2 5:00 to 7:30 Richard Murray 7:30 to 10:00 Jim Geiger & Andy Norman	3 5:00 to 7:30 Lucky 7:30 to 10:00 Kurt McKinney & Friends	4 5:00 to 7:30 Tony Brook 7:30 to 10:00 Trest Richerson	5 5:00 to 7:30 Beth Cooper 7:30 to 10:00 Terrance Baldwin & Friends	6 5:00 to 8:00 Scott Grant 8:00 to 11:00 The Marvtones	7 5:00 to 8:00 Frank Jordon 8:00 to 11:00 Live@Five
8 Daylight Saving 5:00 to 7:30 Marvin Taylor 7:30 to 10:00 Patrick Cross	9 5:00 to 7:30 Breckenridge 7:30 to 10:00 Guitar Slim	10 5:00 to 7:30 Rachael Wilson 7:30 to 10:00 John Bull & Ed Pickett	11 5:00 to 7:30 Lisa Busler 7:30 to 10:00 In Kahootz	12 5:00 to 7:30 Hannah DeMello 7:30 to 10:00 Neil Young	13 5:00 to 8:00 Joshua Stephen Ward 8:00 to 11:00 The Joe Jack Band	14 5:00 to 8:00 Steven McCollough 8:00 to 11:00 Jimbo & Larry
15 5:00 to 7:30 Kat Deal 7:30 to 10:00 Marv & Friends	16 5:00 to 7:30 Ben Norris 7:30 to 10:00 Trest Richerson	17 St. Patrick's Day 5:00 to 7:30 Dennis Pugh Jr. 7:30 to 10:00 The Flanks	18 5:00 to 7:30 Richard Murray 7:30 to 10:00 Rick Carter & Friends	19 5:00 to 7:30 Chris Eiland & Guns 7:30 to 10:00 Zack Austin	20 Vernal equinox 5:00 to 8:00 Black Elvis 8:00 to 11:00 Tommy & Kay	21 5:00 to 8:00 Geiger & Amy Clay 8:00 to 11:00 Kurt McKinney & Friends
22 5:00 to 7:30 Bubba 7:30 to 10:00 C.T.T.S.	23 5:00 to 7:30 Breckenridge 7:30 to 10:00 Joshua Stephen Ward	24 5:00 to 7:30 Lucky 7:30 to 10:00 TBM	25 5:00 to 7:30 Lucky Jones 7:30 to 10:00 Neil Young	26 5:00 to 7:30 Hannah DeMello 7:30 to 10:00 Beth Cooper	27 5:00 to 8:00 Rob Thornhill 8:00 to 11:00 Jimbo & Larry	28 5:00 to 8:00 Steven McCollough 8:00 to 11:00 Rachael Wilson & Hudson
29 5:00 to 7:30 Lisa Busler 7:30 to 10:00 Black Elvis	30 5:00 to 7:30 Tony Brook 7:30 to 10:00 Patrick Cross	31 5:00 to 7:30 Kat Deal 7:30 to 10:00 Scott Grant				

A.4 Source Code

Completed by Xunming Zhang

```
function generateCalendarTable(startDate, events) {  
  
    let calendarTable = [];  
  
    let daysHeader = [];  
    ["Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday"].forEach(day => {  
        daysHeader.push({  
            text: day,  
            style: "calHeader"  
        });  
    });  
  
    calendarTable.push(daysHeader);  
  
    //populate with empty boxes before 1st  
    if (startDate.getDay() > 0) {  
        calendarTable.push([]);  
        for (let i = 0; i < startDate.getDay(); i++) {  
            calendarTable[1].push({  
                text: "",  
                style: "emptyDate"  
            })  
        }  
    }  
}
```

```
let currentDate = startDate;  
while (currentDate.getMonth() === startDate.getMonth()) {  
    //if at the end of the week, add another array  
    if (currentDate.getDay() === 0) {  
        calendarTable.push([]);  
    }  
  
    let cellArray = [];  
    cellArray.push({  
        text: currentDate.getDate()  
    });  
  
    let matchingEvents = events.filter(event => {  
        let eventDate = new Date(Util.toUS(event.date));  
        return eventDate.getTime() === currentDate.getTime();  
    });  
  
    matchingEvents.forEach((event, i) => {  
        // if (i < 2) {  
            cellArray.push({  
                text: [Util.toAMPM(event.start), Util.toAMPM(event.end)].join("-"),  
                style: "dateTimeslot"  
            });  
            cellArray.push({  
                text: event.client.stage,  
                style: "dateClient"  
            });  
        }  
        // }  
    });  
}
```

```

37 exports.sendArtistConfirmation = function (event, client, venue, pdf) {
38   return new Promise((resolve, reject) => {
39     let emailSubject = venue.name + " - Artist Confirmation";
40     let emailBody = "To whom it may concern,\n\n" +
41       "Attached is the Live Performance Contract/Confirmation invoice for " + client.stage + ", who is performing at " + venue.name + ".\n\n" +
42       client.stage + "artist/performers agree to perform live music at The Renaissance/Exchange Bar, 201 Tallapoosa St., Moraga, CA 94552.\n\n" +
43       "\n\n$40.00 booking fee due to MusicMattersBookings.com, on the evening of this performance. "
44       "\n\nIf for reasons beyond your control you are unable to make your scheduled confirmed performance time and date; It will be a full refund.\n\n" +
45       "\n\nThanks,\nMusic Matters Bookings";
46     let emailBody2 = "\nMusicMattersBookings.com "
47     return sendEmail({
48       to: client.email,
49       subject: emailSubject,
50       text: emailBody,
51       attachments: [
52         {
53           filename: "Confirmation " + event.date + ".pdf",
54           content: pdf
55         }
56       ]
57     }).then(pdf => {
58       resolve(pdf);
59     }).catch(err => {
60       reject(err);
61     });
62   });

```

```

//add new date box to most recent week added
calendarTable[calendarTable.length - 1].push(cellArray);

//go to next day
currentDate = new Date(currentDate.getTime() + 24 * 60 * 60 * 1000);
// currentDate.setDate(currentDate.getDate() + 1); // this will crash t

}

//populate with empty boxes after end of month
if (currentDate.getDay() !== 0) {
  for (let i = currentDate.getDay(); i < 7; i++) {
    calendarTable[calendarTable.length - 1].push({
      text: "",
      style: "emptyDate"
    });
  }
}

return calendarTable;
}

function getMonthEnd(monthStart) {
  let monthEnd = new Date(monthStart.getTime());
  monthEnd.setMonth(monthEnd.getMonth() + 1);

  if (monthEnd < monthStart) {
    monthEnd.setFullYear(monthEnd.getYear());
  }
}

```

```

        layout: {
          fillColor: (row, node, column) => {
            if (row === 0) return CAL_BLUE;
            else if (row === 1 && column < monthStart.getDay()) return CAL_GREY;
            else if (row === node.table.body.length - 1 && column > monthEnd.getDay()) return CAL_GREY;
            else if (column === 0 || column === 6) return "#dee2f2";
            else return null;
          }
        }
      });

    let printer = new PDFMake(fonts);
    let pdf = printer.createPdfKitDocument({
      pageOrientation: "landscape",
      content: content,
      styles: pdfStyles,
      defaultStyle: {
        font: "Helvetica"
      }
    });
    pdf.end();
    return pdf;
  };

```

```

let stringifyNames = function (performerNames) {
  if (performerNames.length === 1) {
    return performerNames[0];
  } else if (performerNames.length === 2) {
    return performerNames.join(" and ");
  } else {
    let returnString = "";

    for (let i = 0; i < performerNames.length - 1; i++) {
      returnString += performerNames[i] + ", ";
    }

    returnString += " and " + performerNames[performerNames.length - 1];
    return returnString;
  }
};

```


```

52 exports.sendInvoice = function (event, client, venue, pdf) {
53   return new Promise((resolve, reject) => {
54     let emailSubject = client.stage + " - Invoice - " + Util.toUS(event.date);
55     let emailBody = "To whom it may concern,\n\n" +
56       "Attached is the Live Performance Contract/Confirmation invoice for " + client.stage + ", who is performing at " + venue
57       client.stage + "artist/performers agree to perform live music at The Renaissance/Exchange Bar, 201 Tallapoosa St., Mon
58       "\n\nThanks,\n\nMusic Matters Bookings";
59     return sendEmail({
60       to: [venue.email, venue.emallist],
61       subject: emailSubject,
62       text: emailBody,
63       attachments: [
64         {
65           filename: "Invoice " + event.date + ".pdf",
66           content: pdf
67         }
68       ]
69     }).then(pdf => {
70       resolve(pdf);
71     }).catch(err => {
72       reject(err);
73     });
74   });
75 };
76
77
78
79
80
81
82
83
84
85
86

```


A.5 Presentation Slides

Completed by Xunming Zhang



Music Matters

Jungwoo Hong
Ford Luttrell
Zack Smith
Xiuming Zhang

Executive Summary


- To design and create an application that allows users the ability to input musical artists' names, information, and performance venue into a calendar and sends out a report via email at the end of each month. This is essentially a booking system that sends invoices through email once a month.

Intent this Cycle

- Our intent this cycle was to finalize the application and meet all the guidelines laid out by our sponsor. After several meetings with Mike Moody we came up with a new format for the application. We were asked to add two new buttons for him to access from the home screen so we focused on that. We also were asked to change the wording of some of the template pdf's. We were also responsible for getting his new account setup through TestFlight and making sure the application was accessible from his Iphone.


Design Decisions

- Most of our decisions were laid out for us by templates so we had to find a way to meet his needs. Before a what he sent us and how he wanted the booking screen and other confirmation to look.



Design Decisions

- After meeting with our sponsor at the beginning of this cycle he wanted us to make him a home screen that would allow him to easily access all parts of the application. This is the new design we came up with and he was very happy with the results.



User Stories

Change Design


User Story: As a developer, I want to change the graphic design of application.

Description: The very first thing should be changed is the design which includes the layout of home page. The home page should be added two more buttons. Thus, the home page would be Venue, Clients, Events and Bookings.

Hours:

Total Planned:	15 hours
Planned this cycle:	15 hours
Total Actual:	15 hours
Actual this cycle:	15 hours

Code: Jungwoo Hong
Testing: Jungwoo Hong
Reviewers: Entire Team



User Stories

Change Subject Line

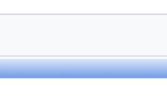
User Story: As a developer, I want to change the subject line of confirmation and invoice to read notes.

Description: The subject line and invoice changing are the important parts in it. Using most notes for it. There is a problem that it is hard to find the right format Mike wants without altering PDF.

Hours:

Total Planned:	30 hours
Planned this cycle:	15 hours
Total Actual:	15 hours
Actual this cycle:	15 hours

Code: Ford Luttrell
Testing: Ford Luttrell
Reviewers: Team



User Stories

Change Font


User Story: As a developer, I want to change the font of application.

Description: Changing the font is not a very easy part. It is a little bit hard to understand the HOOK used on most notes.

Hours:

Total Planned:	15 hours
Planned this cycle:	15 hours
Total Actual:	15 hours
Actual this cycle:	15 hours

Code: Jungwoo Hong
Testing: Jungwoo Hong
Reviewers: Team
Status: Completed



User Stories

Change Email Body

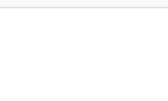
User Story: As a developer, I want to change email body.

Description: Our sponsor Mike wants the email body of the application to be PDF attachments, he prefer everything on the application could be very clear and identity.

Hours:

Total Planned:	10 hours
Planned this cycle:	10 hours
Total Actual:	10 hours
Actual this cycle:	10 hours


Code: Ford Luttrell
Testing: Ford Luttrell
Reviewers: Entire Team



Design Documentation

This is the login page of our application.


This login page



Design Documentation

This is the main page of me Application.


We have Client menu, Venue menu, Bookings menu and Documents menu.



10

Design Documentation


This is the Client page of our Application. User can see client and also add new client in database.



13

Design Documentation

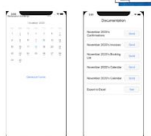
This is the Venue page of our Application. User can generate the form based on schedule.



14

Design Documentation


This is the calendar page of our Application. User can generate the form based on schedule.



15

Design Documentation


This is the Event page of our Application. User can add new event for certain venue.



16

Artist Confirmation


Below is the new code for the artist confirmation after testing with the TestFlight. We added the email subject line because this was a very time consuming part of Mike Moody's day and hopefully this will help him to save some time. We also deleted the email body to match our sponsor's template which is not the same as last cycle.



17

Booking Invoice

Below is the new code for the booking invoice after testing with TestFlight. We changed the email subject line because this was a very time consuming part of Mike Moody's day and hopefully this will help him to save some time. We had to include the artist name, venue, and performance date into the email. This then creates a pdf for Mike Moody and the artist receiving the invoice.



18

Code Example of generate Invoice and format of PDF

```

// Example code for generating an invoice and PDF
// This is a simplified version of the code used in the application
// It demonstrates the logic for generating an invoice and formatting it as a PDF
// The code is written in Swift and uses the PDFKit framework to generate the PDF
// The invoice is generated based on the data provided in the application
// The PDF is then formatted with the appropriate styling and layout
// The final PDF is then saved to the device's storage
// The code is as follows:
import UIKit
import PDFKit
import Quartz
import CoreText

// Define the invoice data
let invoiceData = [
    "Artist": "Mike Moody",
    "Venue": "The Venue",
    "Performance Date": "2023-10-10",
    "Invoice Number": "12345",
    "Invoice Date": "2023-10-01"
]

// Generate the invoice PDF
func generateInvoicePDF() {
    // Create a new PDF document
    let pdfDocument = PDFDocument()

    // Create a new page
    let page = PDFPage()

    // Add the page to the document
    pdfDocument.addPage(page)

    // Generate the invoice content
    let invoiceContent = generateInvoiceContent(invoiceData)

    // Add the content to the page
    page.addContent(invoiceContent)

    // Save the PDF to the device's storage
    pdfDocument.write(to: URL(fileURLWithPath: "/tmp/invoice.pdf"), options: [.allowOverwriting])
}

// Generate the invoice content
func generateInvoiceContent(_ invoiceData: [String: String]) throws {
    // Create a new text container
    let textContainer = CTFrameworkTextContainer()

    // Add the invoice content to the text container
    textContainer.addText("Invoice for \(invoiceData["Artist"]!) at \(invoiceData["Venue"]!) on \(invoiceData["Performance Date"]!).")

    // Add the invoice number and date to the text container
    textContainer.addText("Invoice Number: \(invoiceData["Invoice Number"]!) Invoice Date: \(invoiceData["Invoice Date"]!).")

    // Create a new text frame
    let textFrame = CTFrameworkTextFrame()

    // Add the text container to the text frame
    textFrame.addTextContainer(textContainer)

    // Add the text frame to the page
    page.addTextFrame(textFrame)
}

```

19

Management Plans

- In this final cycle we focused on reinventing the layout of the application. We added several new button functions as requested by Mike Moody. After meeting with him several times we came to an understanding. Next, we presented our new layout to Mike and he loved it. We also got the application added to his phone and are currently working on getting it to him on his computer for use.

20

Task Assignments

- FORD LUTTRELL:** Worked with Mike to come up with a new layout for the home screen. Change PDF's slightly to fix errors found in the code from testing.
- JUNGPYO HONG(Dennis):** Worked with Mike to come up with a new layout for the home screen. Change PDF's slightly to fix errors found in the code from testing.
- ZACK SMITH:** Responsible for getting the application downloaded on Mike's Phone. Zack worked with TestFlight and helped to create him a new account.
- XUNMING ZHANG:** Responsible for getting the application downloaded on Mike's Phone. Zack worked with TestFlight and helped to create him a new account.

21

Risk Mitigation

- The risks that we have to worry about is for our sponsor to have an app that doesn't work.
- This could be that the app doesn't send proper invoices to performers and venues leading to money problems for our sponsor.
- To avoid these problems we must test an extensive amount to ensure that the app will function as intended in all scenarios.

22

Testing Plan

- We independently tested the application by creating a new account on TestFlight and then added it onto our phone. This helped us to quickly help Mike create a new account and load it onto his phone via zoom.
- Tested PDF's with our sponsor on a zoom call and every PDF created had the correct inputs that Mike gave us.
- Main things being tested:
 - Application setup test
 - Calendar Format
 - PDF creations and accessibility to Mike
 - Run through an entire test of the app on Zoom with Mike and the new app he loaded

23

Delivering

- Expo Buildtool create of react to create ipa file.
- Then we used transporter app to upload file to apple connect.
- Inside apple connect we use testflight to create a beta app for people to download.
- Then get Mike to install testflight and install the app through that.
- This beta version only last 90 days so we have to upload to app store to get it to him permanently.
- However we have to wait for apple to review the app before that so we are letting him test it and fine tune it before then.

24

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- This beta version only last 90 days so we have to upload to app store to get it to him permanently.
- However we have to wait for apple to review the app before that so we are letting him test it and fine tune it before then.

24

Lessons Learned

For entirety this semester

- Team work
- Independent work
- Communication

25

Demo - Dennis



26

A.6 Digital Signature

Completed by Jungpyo Hong