



# Night Planner

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Final Report

SMAD317

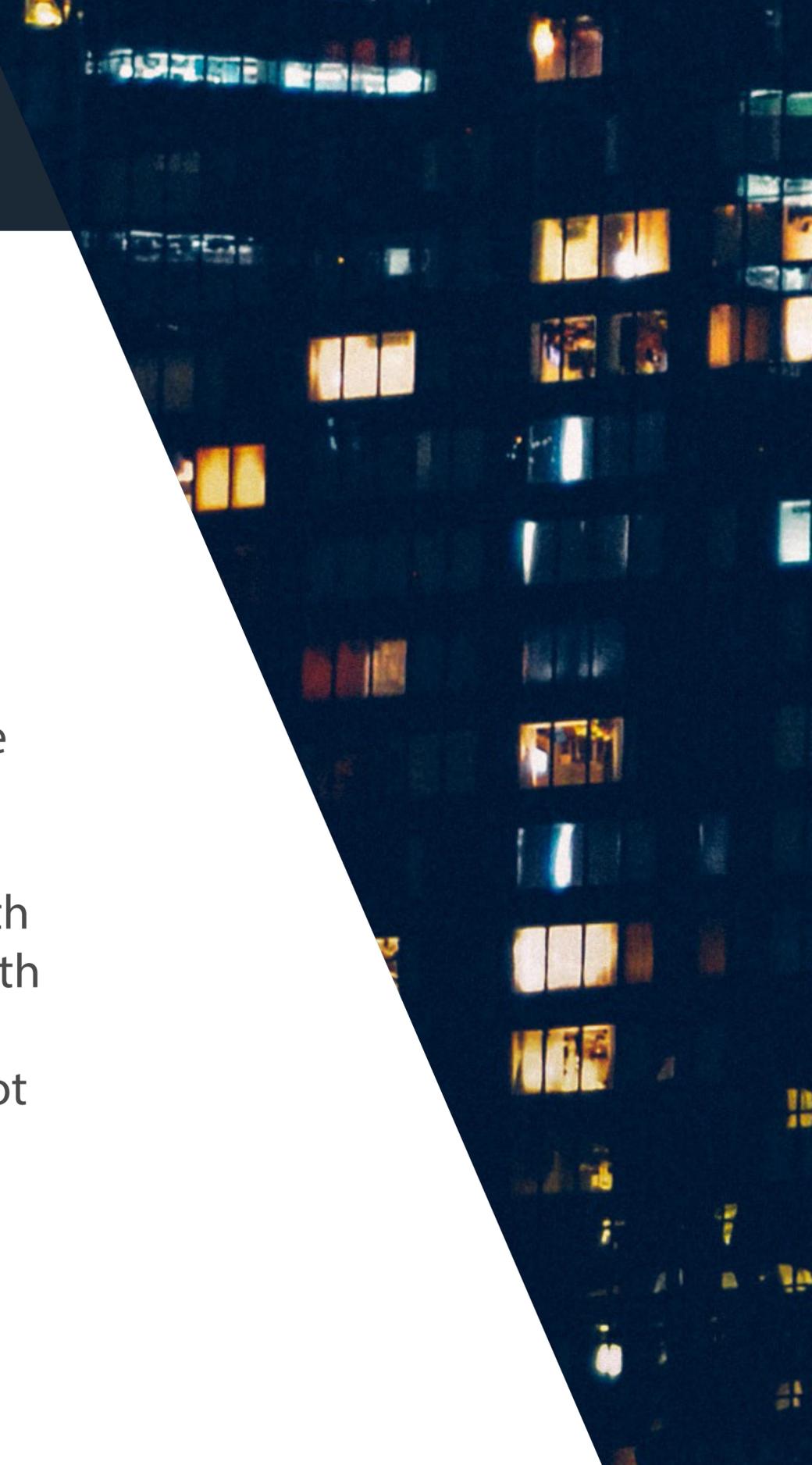
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# Executive Summary

A play on the commonly used “day planner,” Night Planner aims to provide a space where users can find and plan events to attend based on their location. We found that our target audience of young adults don’t have, but desire, a more convenient way to fill their sometimes frustratingly open evening schedule. Though there are apps that showcase big-name events like concerts and sports games, there are close to none that offer a hub for finding local happenings, such as bar events, small house shows, or open mic nights. After research, we found that our potential users would have long-term goals (those who plan) as well as short-term goals (those who act spontaneously). We made it our goal to make changes that would accommodate both of those general users throughout development. These functional changes, along with design changes were made possible through testing at various stages of the design process. In the end, we implemented this feedback into a final product that would not only help convenience young adults, but also encourage them to go out more.



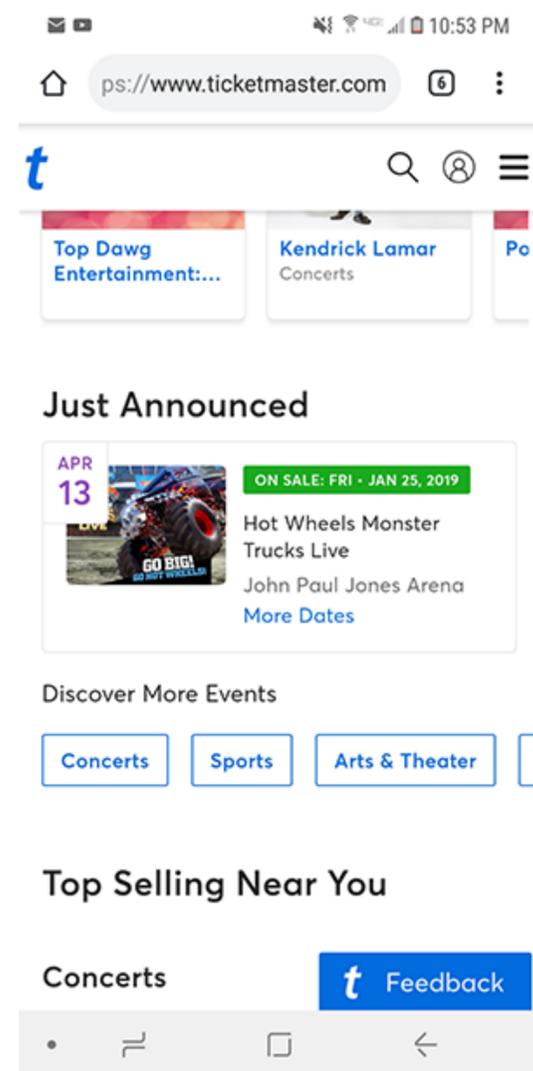
# Problem Statement

College students need a convenience app that will allow them to have access to events, both well known and lesser known, because they desire entertainment outside of their busy schedule so that they are able to capitalize on their free time.

# Related Work

During our research we found several systems already in place that aim to solve similar issues. All of the following examples fall into the optimization category and addressed the problem by providing and somewhat organizing events in one medium, be it a mobile application or website. Some inspiration was drawn from these current systems in terms of their layout and the option of filtering by category. However, our scope was narrowed to the city of Harrisonburg for this project, which allows us to cater to the requirements of our target audience. In turn, the downfall of nearly all of these required works was the lack of exposure for local events in smaller cities.

## Ticketmaster



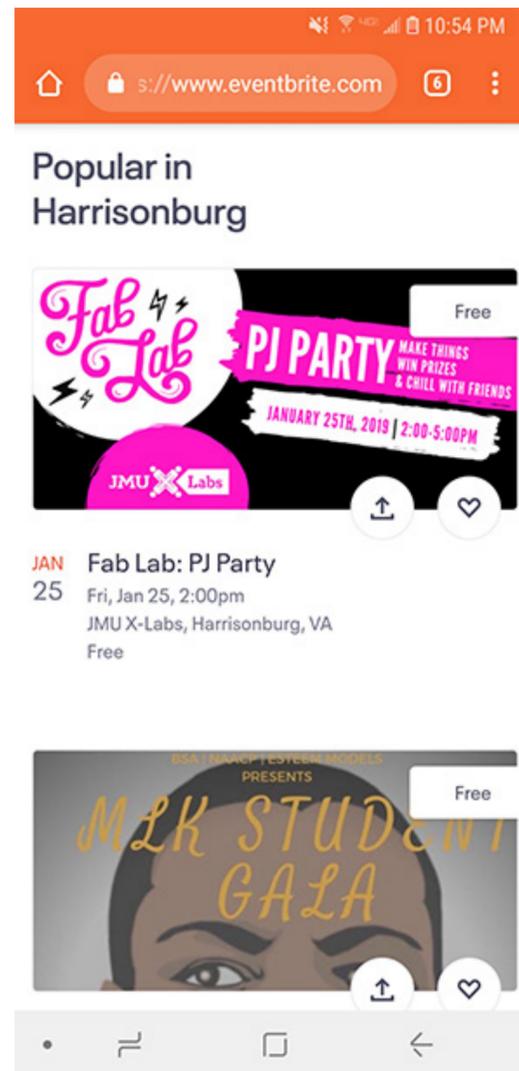
### Pros:

- Lists popular events
- Provides a way to categorize events
- Provides a way to filter events

### Cons:

- Focus only on well known artists/bands
- Does not include lesser known, local events
- Does not include free events

## Eventbrite



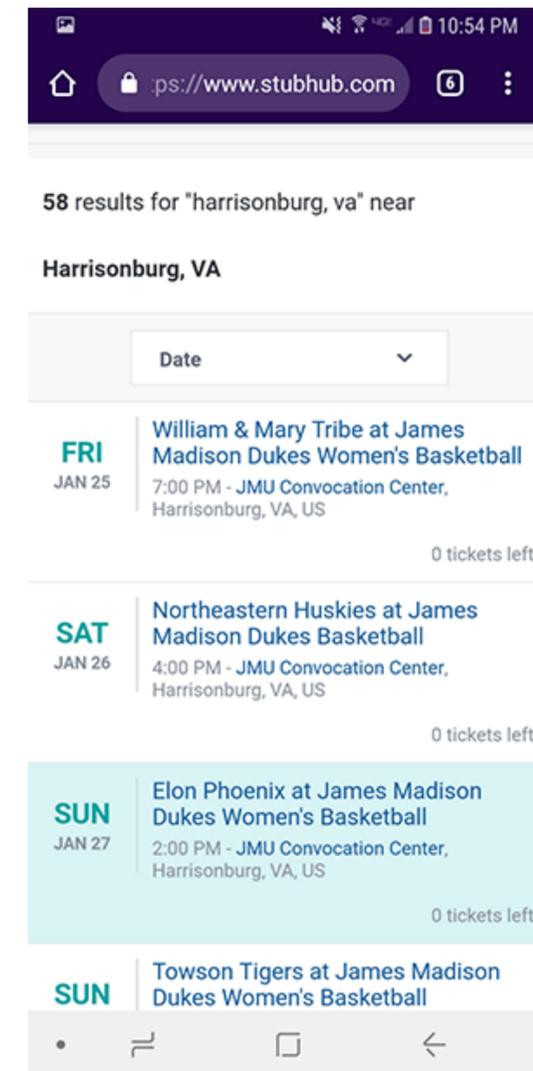
### Pros:

- Includes some local events
- Includes free events
- Intuitive, modern layout similar to social media apps

### Cons:

- Categories are not clear or unavailable
- Local events that are posted are only school sponsored

## StubHub



### Pros:

- Offers categories
- Provides a way to filter events

### Cons:

- Only local events are sports related
- Categories are extremely limited
- Layout is too simple

# Design Process

## Defined Users

While anyone can use Night Planner, the specific group identified for the purposes of this project were JMU students. These students represent a variety of smaller, precise user groups:

Students under the age of 21

Students aged 21 and over

Students who attend events frequently

Students who attend events less frequently

It should be noted that Night Planner is intended to be used by venues/hosts as well, so they can freely post events themselves. The application will also have a passive effect on these users, due to the increased attendance of events around town.

## Interview Process

Qualitative interviews were conducted on 5 interviewees, all of which were personal contacts or friends. We chose them because we felt comfortable asking them for information and knew we would obtain reliable results. Our group interviewed them at different times and locations. It was not difficult finding subjects because we easily relate to the target audience.

## Interview Questions

1. What is your name, grade, and major?
2. Where do you live?
3. What is your primary method of transportation?
4. How often do you attend evening events?
5. How much money do you typically spend at evening events?
6. Are your night outs planned or spontaneous?
7. Do you typically attend evening events alone or with a group?
8. What is your current method of finding evening events?
9. What problems do you have with this method?
10. What would help solve these problems?
11. Would you go to more events if these problems were solved?
12. What kind of evening events do you prefer to attend?
13. What is your weekly schedule like?
14. What new events/places do you like that you have attended recently?



# Primary Persona

The aim of our primary persona is to encompass the majority of users; those who will be using Night Planner on the go or in spontaneous situations such as randomly going out or in the event of their original plans falling through. These users almost always go out with a group of friends and are more likely to attend more than one event in a single night.

## Candace Wright



*"I really want something to do tonight but on such short notice, it's nearly impossible to find something!"*

**Age:** 21  
**Work:** Full-Time Student  
**Location:** Harrisonburg, VA

### Bio

Candace is a 21-year-old Junior at JMU. She travels back home during school breaks, so she tends to try to get the most out of Harrisonburg while she is here. Candace still isn't as familiar with Harrisonburg as she would like but she attends numerous events every week. Free time is usually derived from same-day planning and she is always up for new experiences.

### Goals

- Wants to have as much fun as possible during her free time.
- To be able find something to do quickly.

### Frustrations

- Lack of options that help layout events, both at known and lesser known venues.
- Needs a source of events that is more organized

### Motivation

Efficiency/Time Management

Monetary Efficiency

Social

### Current Channels

Social Media

Word of Mouth

Flyers

Planning Applications

### Personality

Introvert	Extrovert
Thinking	Feeling
Low-budget	High-Budget

## Secondary Persona

The secondary persona was made with the less frequent users in mind. Though they may not attend events as often, these users tend to plan ahead and be more concise in their planning, making sure to only attend events they know they have interest in. They are generally less social but still enjoy a night on the town. They have found a balance between their rigorous schedules and available free-time. may go out alone or with friends.

### Ryan Smith



*"It's so frustrating when I can't plan for something I know I would enjoy."*

**Age:** 22  
**Work:** Full-Time Student  
**Location:** Harrisonburg, VA

#### Personality

Introvert  Extrovert

Thinking  Feeling

Low-budget  High-Budget

#### Bio

Ryan is a 22-year-old in his 4th year at JMU. After spending a few years in Harrisonburg, he is quite familiar with the place, has a good group of friends and enjoys a relatively lively social life. He tends to plan out his evenings and looks for events he knows he and his friends would enjoy.

#### Goals

- Would like to use his free time as efficiently as possible.
- To be able to see more plans that happen in the future.

#### Frustrations

- Lack of options that help refine events and venues.
- Unreliable nature of word of mouth.

#### Motivation

Efficiency/Time Management

Monetary Efficiency

Social

#### Current Channels

Social Media

Word of Mouth

Flyers

Planning Applications

## User Goals

- Be able to find something to do on short notice
- Be able to search based on location
- Filter events based on category/type

## Scenerio

Candace wants to spend the evening in Downtown Harrisonburg with her friends from club soccer. They don't want to spend excessively (over \$15-20), but are willing to spend whatever it takes to have a great time. They see on Facebook that a few of their mutual friends are attending a trivia night at Brickhouse. Candace and her friends grab an Uber to Brickhouse, only to find out (after they arrive) that the event was rescheduled to next week. The group feels incredibly frustrated with their evening plans, until Candace remembers the Night Planner app.

She knows she should use the app because it has accurate event information and convenient event location. She asks the group if they have any other particular interests in mind for the evening. A majority of her friends tell her that they want to hear a live musician, or go to a food & wine tasting. Candace takes these selections into account while filtering her events near her location on the app. She's presented with a timeline of events happening in the area for the evening, the RSVP responses of her other friends in the area to each event, and all prices/details associated with each event. She is able to see that an Uber is available near-by to drive her and her friends to the venue. Candace decides with her friends to attend the concert of a local solo guitarist at Clementine's, and they are able to obtain all necessary information to attend the event because of the Night Planner app.

# Storyboard 1



The first storyboard is a visual depiction of our scenario used with our primary persona. The situation presented in the storyboard is to show the frustrations that users go through in the event of plans falling through with no back-up readily available. Night Planner is there to provide that back-up plan, where users can quickly turn the tides on bad luck by being able to choose a new event to attend quickly and easily.

# Storyboard 1



The second storyboard is to depict the frustrations that our secondary person may encounter with their current method of finding events. Night Planner is presented to alleviate those frustrations by providing the ability to organize and filter local events so users can choose something they know they will enjoy.

## Research Takeaway

With the user research stage complete, we had enough data to start the design process. Listed below is a list of different requirements we concluded would be necessary to deliver a desirable product to our target audience. It is important to note that this list is not at all exhaustive and is very much subject to change as we move forward to design.

## Functional

- Integration of social applications so users can post to followers
- Interactive map view for a quick snapshot of what is happening around users
- Scrollable timeline
- Ability to filter events by day and type
- Search function that will allow finding specific events or venues

## Contextual

- Location based browsing
- Time based browsing
- Night mode color design

## Technical Requirements

- Event posts available at all times, in real time
- Active GPS tracking
- Integrated Google Maps API
- Saved events available offline

## User Requirements

- Ability to filter events by category or day
- Pricing info per event
- Quick and easy access to events
- Local events at lesser known venues available
- Simple, modern interface

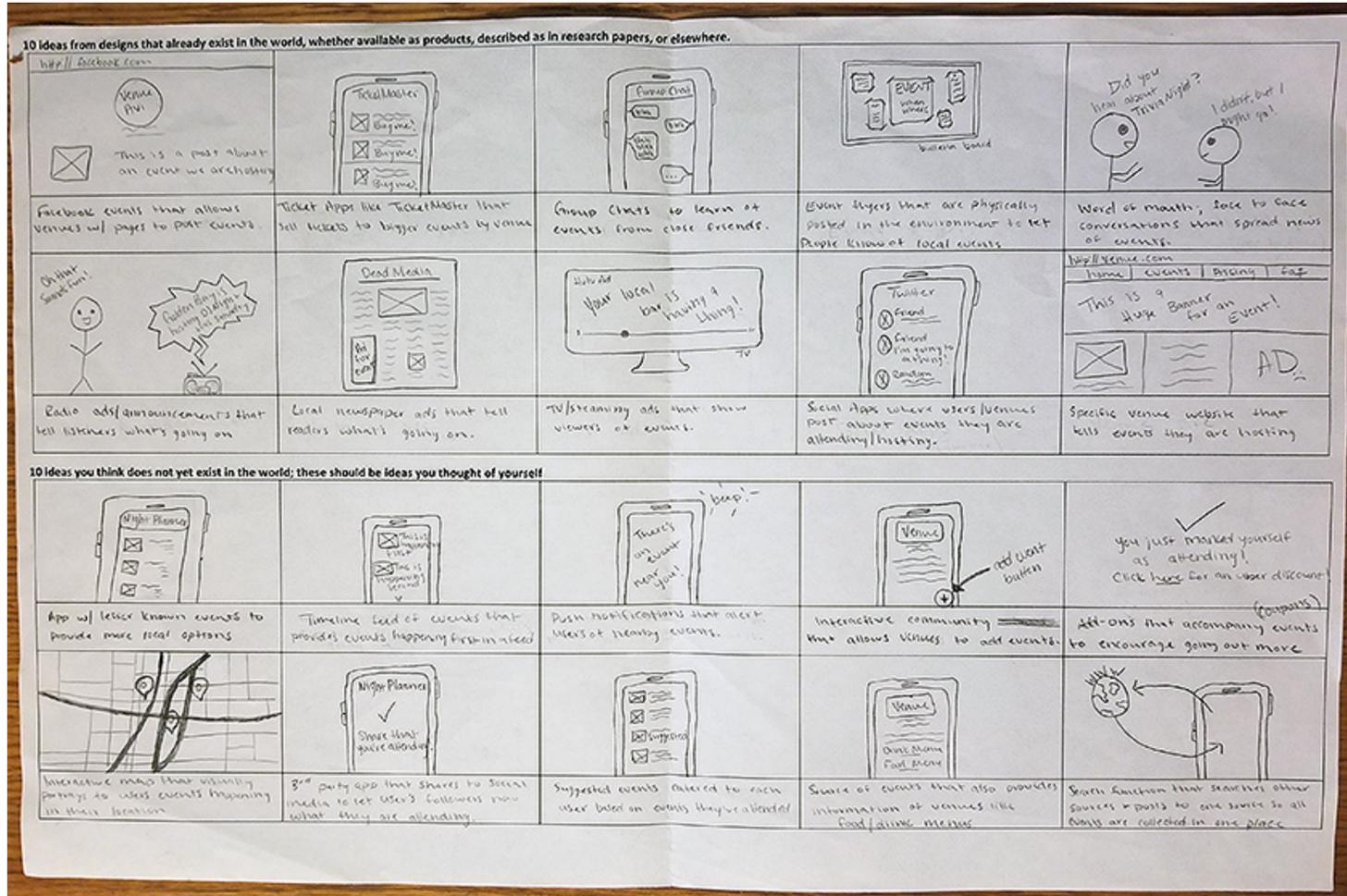
## Data

- Timeline of events
- Feed that would cater to specific users
- Attending and favorite lists to keep track of saved events

# Design Solutions

## Brainstorming and Sketches

### Sketches



To begin the design process, we implemented a speed sketch technique. Here we came up with 10 designs that already exist, as well as 10 that don't. The focus here was on quantity, not quality, to ensure we get as many ideas out on paper as possible. Starting this process was a bit challenging because the team had a relatively good idea of what we wanted the design to be but in the end, it helped use develop the different interfaces users would encounter within our platform.

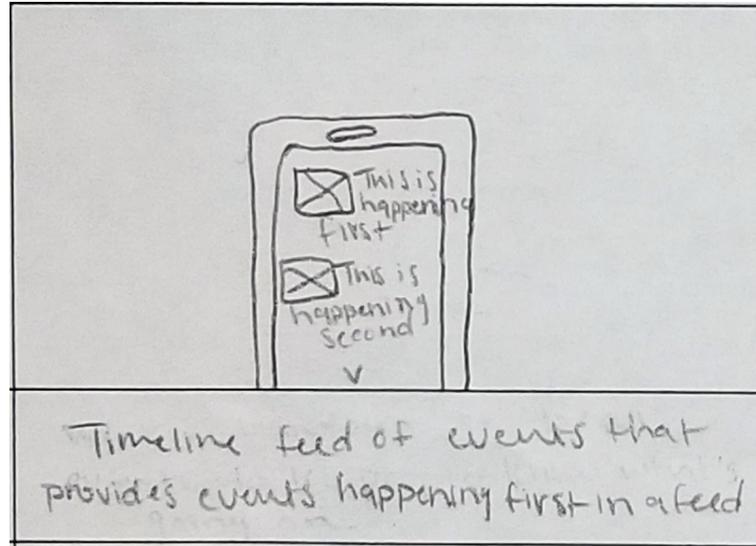
### HUF Test

We then took the top 5 sketch ideas and applied the HUF test to see which designs would be most useful moving forward.

Idea	New	Useful	Feasible	Total
Backdoor search function	8	9	4	20
Source that provides local events	7	9	10	26
Scrollable feed of events	6	8	10	24
Interactive map	8	8	9	25
Source with venue info	7	6	8	21

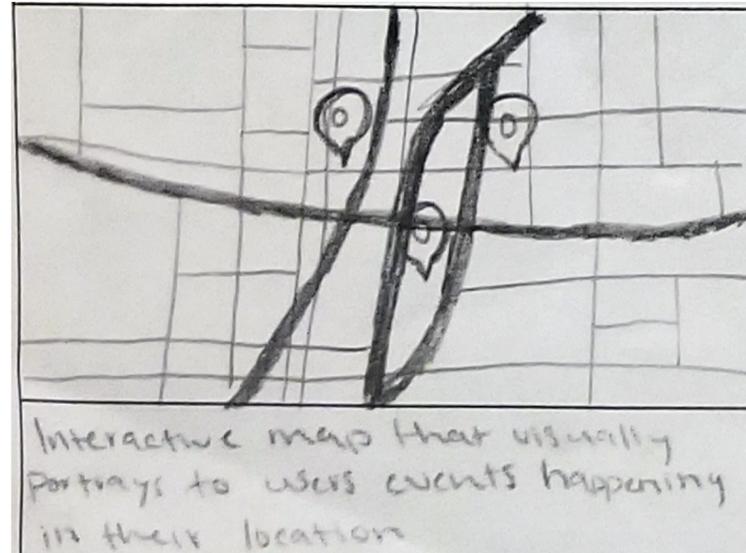
### Concept 1

Timeline feed that shows events happening in the user's area in chronological order.



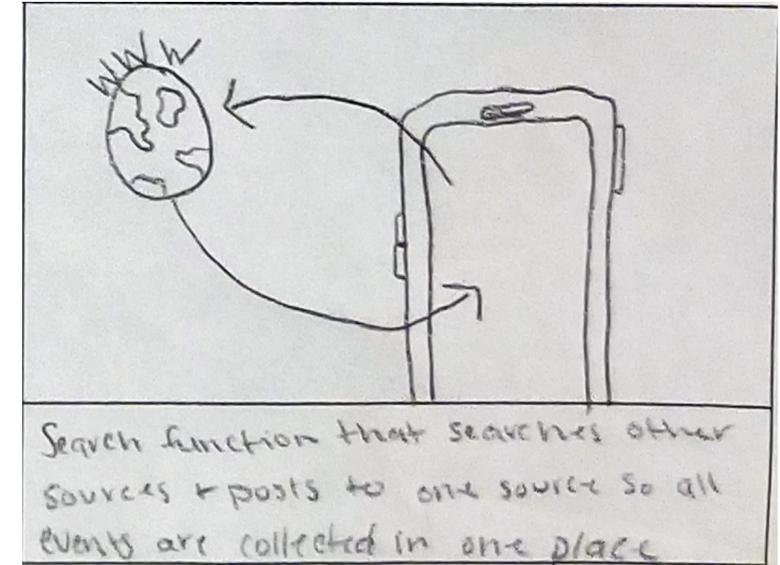
### Concept 2

Interactive map using Google Maps API to show events that are happening same-day based on location.



### Concept 3

Backend search function that searches other sources and compiles to one source.



After evaluating our 3 best concepts, we concluded that Concept 1 and Concept 2 were the most feasible and that both could be included in the app to serve useful functions to both our primary and secondary users.

### Task 1

Sign in as a returning user



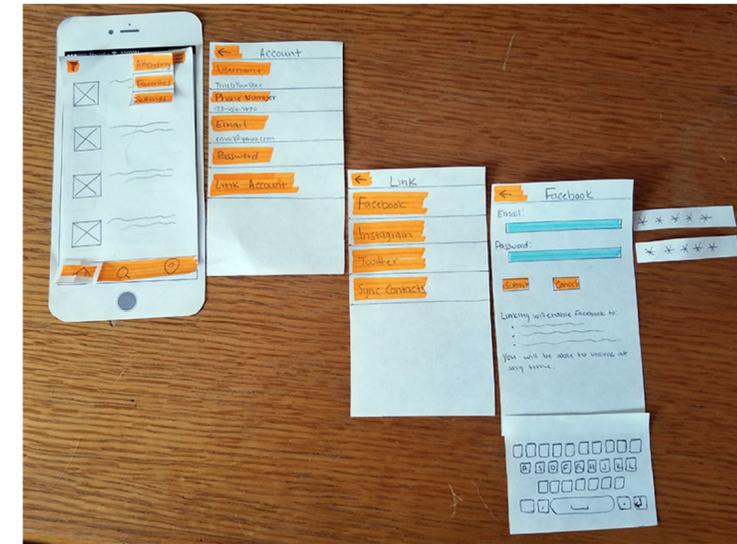
### Task 2

Enable GPS tracking



### Task 3

Link Facebook account



### Task 4

Use the map view to attend an event



### Task 5

Filter events on the timeline by Saturday



## Pre-Test Reflection

We took a lot of inspiration from well established apps like Twitter and Ticketmaster, so our interactions mimic close to those. It was hard to pinpoint a more complex task within our app because the goal is to make things rather simple for the user. With that, our tasks and interactions seem straightforward. One doubt we had involved icon choice, such as the filter icon used to resemble the filter menu. Another was whether we should include important aspects such as the users “attending” and “favorites” events inside the hamburger menu; we weren’t quite sure if people would inherently understand that’s where those areas would be found. Lastly, we hit a conflict of what our home screen should be or if we should enable the user to make that decision since we are split on the usefulness of both the timeline view and the map view. We seemed to fall a little short of the number of interactions, we couldn’t quite find anywhere to squeeze more in without having to complicate our interface and add un-needed elements.

## Testing

With a group of three, we each had a distinct role during testing. Michael was the testing proctor, Shaunak recorded video and took photos, and Sara recorded observations. After briefing, Michael laid out the prototype and gave tasks to the tester while changing screens for them. We instructed the tester to think aloud while they carried out the tasks. If they managed to get stuck on a task, they were instructed to seek help when needed. After testing, Shaunak asked the set of open-ended questions and gave the tester a moment to speak freely for any criticism they may have.

Observation notes included descriptive terms to notify us of any trouble that the users may have had on a specific task. We also used a score system when evaluating each task. If the task was completed without any trouble, it received a score of 5, tasks that caused a delay or frustration in the user but were still completed received a score of 3, and tasks that were not able to be completed without our guidance received a score of 0.

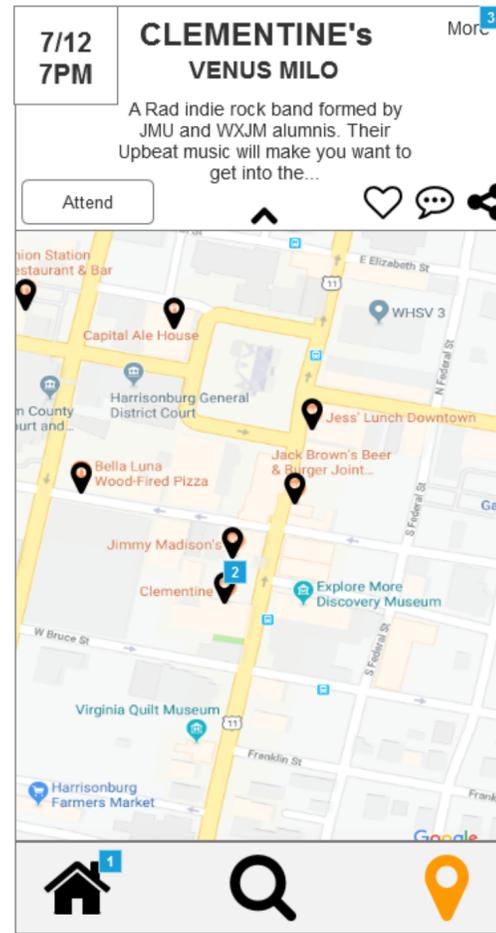
## Takeaway

The biggest problem we had during our testing was with the configuration of our settings menu. Though part of the problem could have been from the flat nature of a paper prototype the testers brought up a very important point with the My Account button. We took the advice and made the change to make the text for the button right justified, for ease of access since most users are right handed. We also added a small arrow indicator next to the text to let users know that clicking in that arrow would advance to a different screen. We concluded that the problem the filter button caused was due to the poor sketch on the prototype itself, and felt that no change would be needed. Similarly, the delay in Task 2 by Participant 2 was concluded to be from poor design of the paper prototype itself, not the interface. From feedback from all three testers, we decided to stick with the timeline view being the home screen and the option of a map-view being available at the bottom navigation.

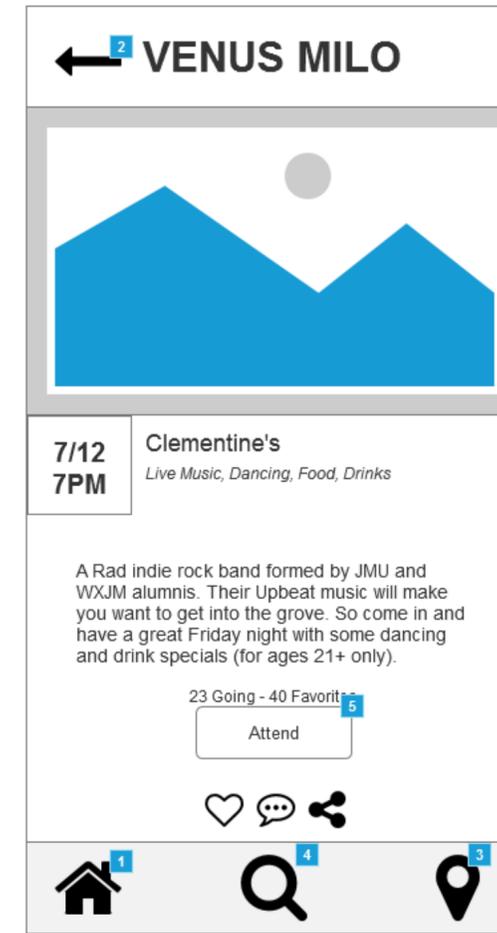
### Home Timeline



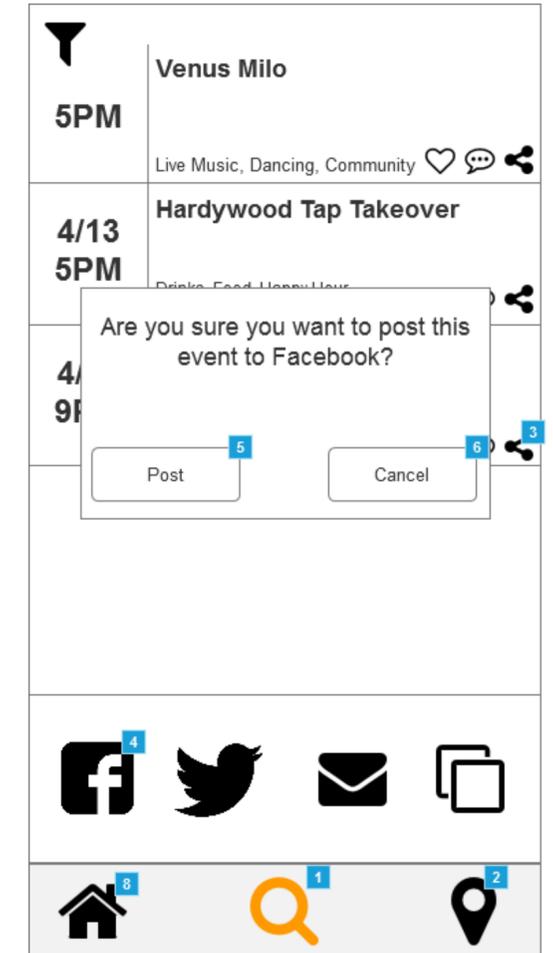
### Map View



### Event Page



### Sharing a Saved Event



### Pre-Test Reflection

While making the prototype, we had some trouble figuring out how to add conventional interactions such as scrolling and zooming. We would expect these to be included in the final product. A share task was added to this round of testing. We also decided not to make any changes to some of the problems we had during the paper phase to see if the cause of task failure was due to the physical nature of a paper prototype.

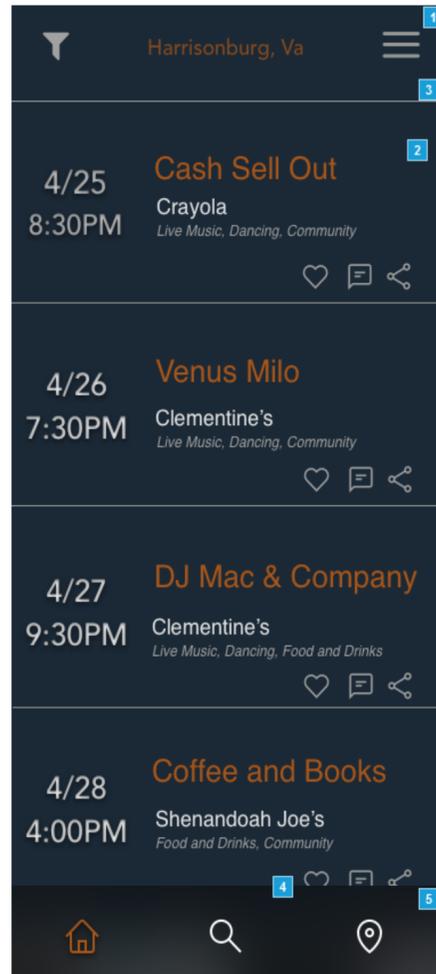
### Testing

We had users test this prototype on desktop. The time it took to complete all tasks were recorded and each task was received a score out of 5, as in the paper prototyping phase. All other testing measure were virtually the same as well.

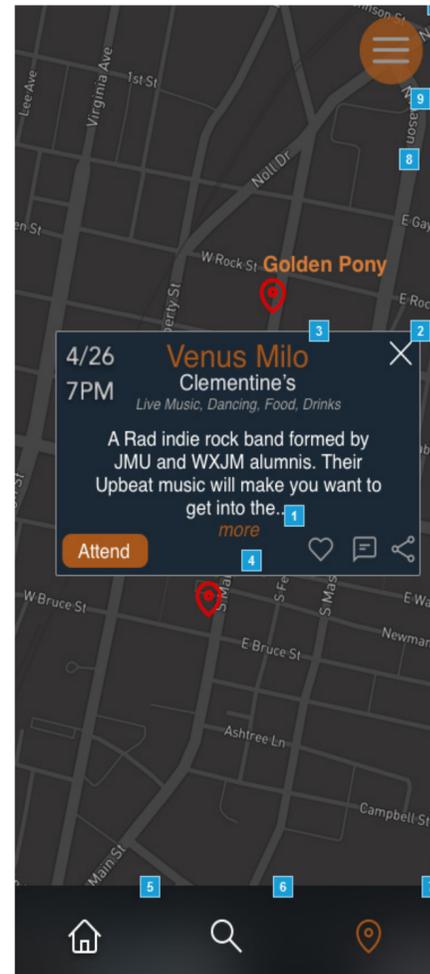
### Takeaway

We were able to gather more useful feedback during this phase. The biggest problem that was brought to our attention was where we placed the "more" button in the map view when checking event details. Generally, all tasks were completed with relative ease. The lack of interactions during this phase proved to be the only downfall.

## Home Timeline



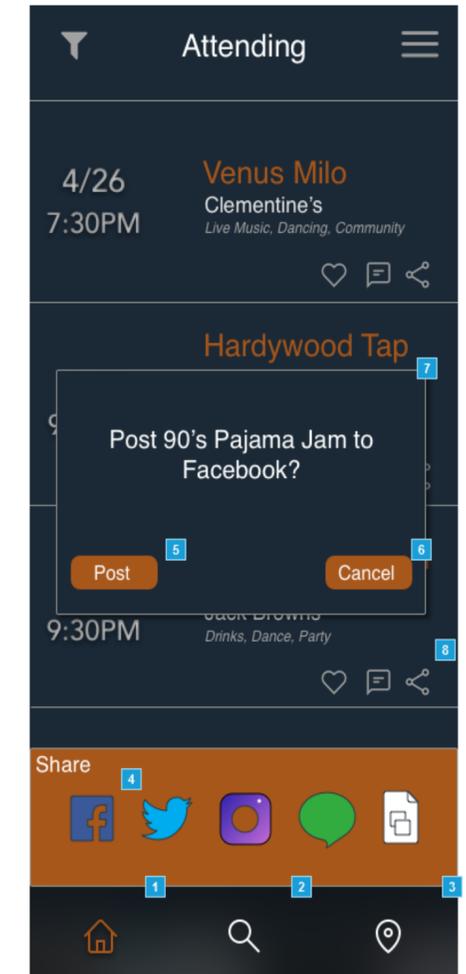
## Map View



## Event Page



## Sharing a Saved Event



## Pre-Test Reflection

We took the criticism from our low-fidelity testing when moving to this phase. The "more" button for events was moved and styled to indicate that it was clickable. The pop-up event window after the user selects a map marker was moved from the top of the screen to the top of the chosen marker to indicate that was the location they were inquiring. We also added headings to some pages, and made the search pages more consistent.

## Testing

For this phase, we had users test on a mobile phone using. We had 3 testers, who represented our general targeted audience. The same evaluations were made during testing as the previous phases where we kept track of the time it took to complete tasks, as well as any difficulty that was had. We did record this testing via a mobile phone with an over-shoulder-view to capture both the screen and the users movements.

## Usability Testing Participants

### Naji Link

Age: 22

Gender: Male

Occupation: Part-time student, part-time barista

- Tends to go out an average of 3 weekends a month
- Spends \$20 or less a week on entertainment/going out
- Prefers live events

### Toshi Naganine

Age: 25

Gender: Male

Occupation: Full-time student

- Tends to go out only once a week
- Spends roughly \$25 a week when he does go out
- Prefers bar events

### Marcellus Jones

Age: 22

Gender: Male

Occupation: Full-time student, part-time cook

- Tends to go out an average of 2 times a week
- Likes to keep spending at an absolute minimum
- Prefers live events and local house shows

## Briefing

“We are developing an application called Night Planner, to mirror a day planner but for your evening events. The idea is to help college students find local events and activities in so they can get the most out of their limited free time. Today we laid out a series of tasks for you to complete that will utilize the main functions of our application such as finding an event, filtering results, and linking different accounts.”

### Pre-Test Questionnaire

1. Would you use an app that is solely dedicated to sorting and finding events?
2. What are some functions you would like from such an app?
3. Do you like to integrate your apps together?
4. Do you use any planning apps, such as a calendar?
5. Do you take advantage of location based tracking?
6. How often do you go out?
7. How do you currently find events to go, or things to do?
8. How much do you spend, on average, on extra entertainment/going out?

### Post-Test Questionnaire

1. What were some of the most beneficial features in this app?
2. What was the most difficult or frustrating task for you?
3. How could we make that task better for future use?
4. What else would you like to see from an app such as this?

## Testing Method

### Briefing

### Pre-Test Questionnaire

### Explain Tasks

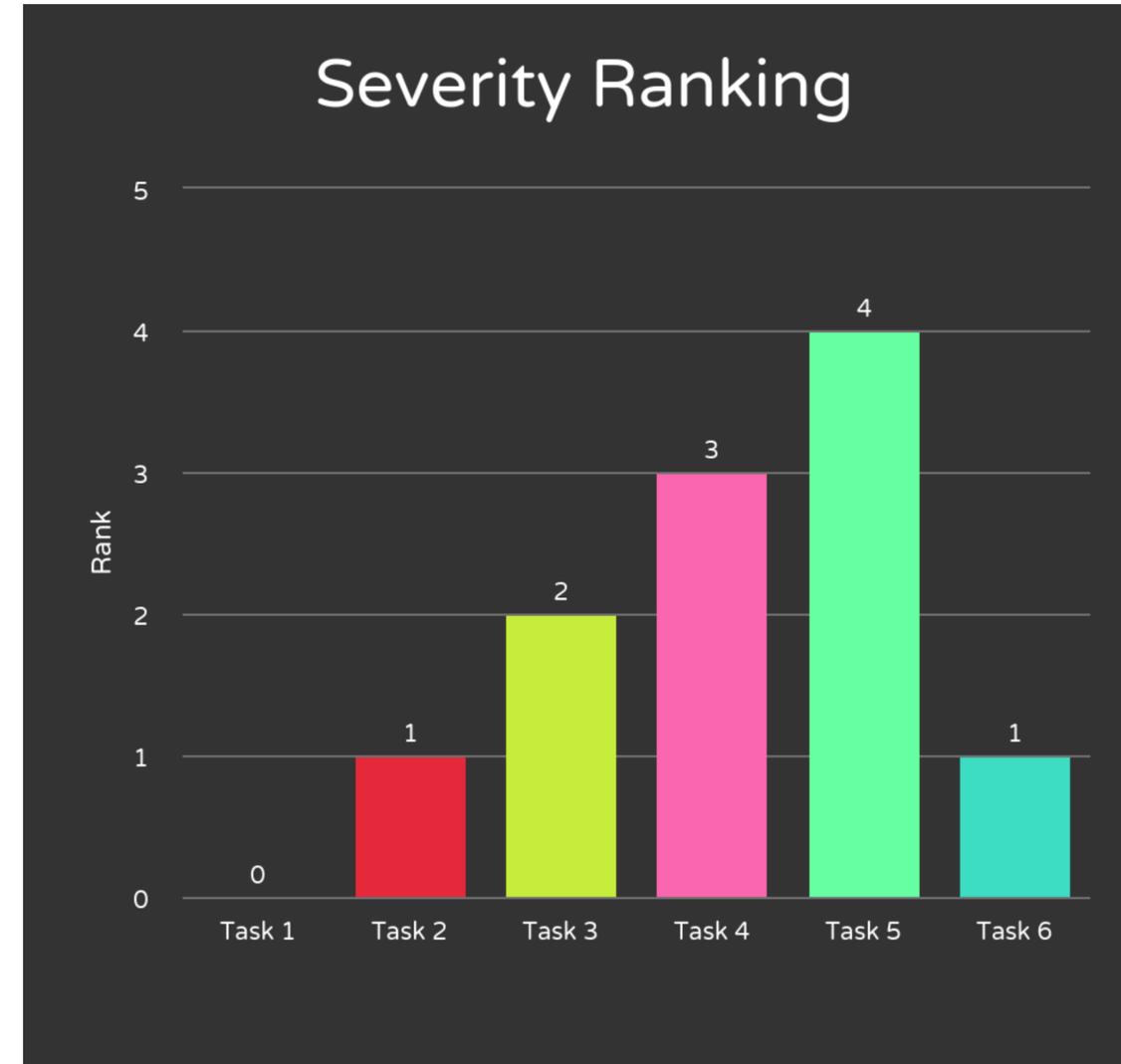
1. Sign into the app as if you already have an account using the high-fidelity prototype
  2. In the settings, enable GPS Tracking using the high-fidelity prototype.
  3. In the settings, link your Facebook account using the high-fidelity prototype.
  4. Using the map view, find how many people are attending the event at Clementine's using the high-fidelity prototype.
  5. Use the search feature to search for events at Clementine's, filter by Saturday, and favorite the Nixon event using the high-fidelity prototype.
  6. In your attending events, share the event 90's Pajama Jam to Facebook using the high-fidelity prototype.
- Use the search feature to search for Clementine's, filter these results by Saturday, and favorite an event using the high-fidelity prototype.

### Conduct Testing

### Post-Test Questionnaire

1. Does the prototype make you want to use it for finding events if it had more depth?
  - Yes.
  - Yes, it could prove to be very useful for those who go out often.
  - Yes, I would use it for the map view alone.
2. Do you prefer the app to open to timeline view or map view?
  - All three participants prefer the timeline view as the home screen, but all agree that the map is very useful.
3. Were the filter button and menus easy to locate?
  - Filter button was hard to locate, didn't understand that's what it was/
  - I had to scan the screen first to locate them.
  - I found them both rather easily, the menu more-so.
4. Are there any features you would change or add?
  - All of the functions and features seemed adequate for the end goal.
  - Everything seemed necessary and there wasn't anything that wasn't really used.
  - Seemed to follow today's conventions, just needed more color in my opinion.
5. What was the most frustrating/troubling task for you?
  - All three participants noted the filter button needs a better icon so that it is recognizable.

## Analyze Data



## Takeaway

Our two-tone color scheme seemed to cause some problems for users locating the hamburger menu and filter button. The filter button itself failed in all 3 tests, all of the users didn't understand it's function or recognize that it was there for that function. These buttons would be made more visible in the future. There was also hesitation during the tests when needing to navigate to the map view as well as the search page. Additionally we encountered a language barrier during one test which could skew our results. After testing, all 3 users noted that the app could make a great addition to those who go out frequently and are always looking for things to do. Feedback on the overall design was good, as well as the color scheme, but as mentioned before, we may need to add more tones so that important features would be highlighted for future use.

# Conclusion

Continually working on this app and seeing the different stages of development and the challenges that come with them was extremely eye opening. From using our skills in user research, to building a paper prototype, all the way to conducting usability testing on a high-fidelity prototype, we each learned something new. We became familiar with tools such as Axure RP, Sketch, and built interpersonal skills while having to work in a group. At the end of the process, we all feel that it was a beneficial experience and will help in our future endeavors