CPSC 481 - Team K - Stage Two

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Project Idea: Map Activity & Events Recommender

Project Idea

Our project is a mobile application available on iOS and Android that will connect event planners with individuals looking to participate in activities happening in their city. The app will display a map of the city the user is currently in, similar to Google Maps, with pins dropped in locations that correspond to activities such as "impromptu basketball", "secret donut shop", "city scavenger hunt" and other events. The system will be used when a user opens the application, explores the events happening around them, selects an event to view the location and details, and can click a button to open the address in Google Maps and navigate to the event location. For event planners, they will be able to tap a button to create an event, provide information like the address, time, and description, add keywords that describe the event, and press submit which will then drop a pin on the map for all users to see. The system is meant to be used by any individuals over the age of 18 that have spare time and an interest in exploring the city and participating in various activities. It will also be used by any small businesses or organizations that wish to put together events.

Links

GitHub: https://github.com/mperror/cpsc481-TeamK
Portfolio: https://mperror.github.io/cpsc481-TeamK/

Stakeholders and Users

- Event Organizers
    - Local Businesses
        - These businesses may be interested in creating unique marketing campaigns that involve customers visiting their location. Examples of this include "Free donuts for first 50 customers" or "Spin the wheel to win a prize, while getting coffee from our shop".
    - City Planners (Government Officials)
        - The government may want to organize events such as firework shows during holidays like Canada Day. This app would allow them to design a more robust experience and inform more citizens of what is planned.
    - Charities and Non-for-Profit Organizations
        - These organizations may put together charity events and fundraisers with games and activities to entice people to visit and get informed about their mission.
- Event Participants
    - Any local citizen over the age of 18
        - As this app is meant to be accessible by everyone over 18, this ensures the safety of individuals being able to check out any events that cater to them.
    - Tourist
        - When a tourist is visiting a new city, they may be interested in checking out local events during the duration of their visit to make the most of their experience.

Three User Research Methods:

Ask - Surveys & Questionnaires
The questions were asked to ascertain certain characteristics and understand the users who would be interested in this product. We interviewed 26 people that could be potential users of the application, and we had a large variety of people ranging from different ages, backgrounds, lifestyles, etc. From the responses given, here are a few things that were noticed: The majority of users were not familiar with event planning applications. Many people only go to these events once or twice a week (mainly because they find out about these events from all over the place), and the average person who replied was not a full blown introvert or extrovert, the average was a 7. Doing a survey was very beneficial for our research as it did give us a better understanding of our audience (the average user), we could elicit replies quick and easy, and we were able to distribute the survey to many people. Combined, these factors are what went well for us. What went poorly was there was a misunderstanding with a question. When people were asked how they found their events, they didn't seem to comprehend the question fully based on replies given. The wording was not clear, leading to lots of outliers. To improve, we could have changed the wording to be more clear and concise so the responders of the survey give more accurate answers. If we did that differently, the better responses would have helped.

Learn - Competitive Product Survey
Pre-existing products were reviewed in order to set a base for which features would need to be implemented, and which features are flawed and should not be implemented in our app. We reviewed four most frequently used event apps. By looking at these apps, we got a better idea of features that would need to be implemented within our system. As many of these competitive products have been around for a long time now, they can be used as a base point to build on and improve products. The features that we noticed that were impressive and we would like to implement and adopt can be found in the appendix. Competitive product surveys were beneficial as they allowed us to analyse, see and experience what similar apps in the market are currently looking like, and help define our own app's functional requirements. One of the main issues that we encountered during this research was that a lot of apps had overlap, making it difficult to figure out which system or approach would be best implemented. Another issue looking into each product's functionality and getting the pros and cons was time-consuming. For next time, it would be better if we did the competitive product survey with an audience and asked them questions about it to get more opinions.

Try - Scenario Testing
Three different scenarios were brainstormed to try and succinctly cover and express our application's possible functionalities. At the same time we tried to tailor each of these scenarios to serve as an embodiment of different potential user perspectives like that of a tourist or small business owner. These were given to six potential users to elicit feedback and it was a great way to get feedback on the different functionalities that we would like to have in our app. In terms of what went well, some of the scenarios got the interviewees really excited about the application as they had either never heard of an event planner app like ours and really wanted to have something like it. The scenarios were good at eliciting more elaboration from some of the interviewees; getting what they thought about the

application and based on the three scenarios, the interviewees had a good understanding of the system. Some participants thought that the scenarios were too specific and were confused, so they often needed guiding questions to give proper feedback. Others thought they were too general and they forgot the main functionality of the app and would get lost in them. Next time, we should first use some other more initializing research methods that can inform our scenarios and help us flesh them out better. Finally, having more than three scenarios with a good mix of specific and general cases could help us cover more ground as there seems to be a hit-and-miss for how general or specific the scenarios should be.

Justification for Card Selection

We deliberately chose cards from the learn, ask, and try category. The reason for that was because we wanted to first learn about the different competitive products that people would already be familiar with to establish the groundwork. This investigation was important because it helped with formulating relevant questions to ask in our survey. During the scenario testing, we learned about people's opinions in different settings and their feedback allowed us to increase our understanding of their expectations. While we were able to conduct our cards virtually, we noticed there were challenges with communicating our exact thoughts and ideas with our participants which could be improved upon in future research.

User Task Descriptions

Must be Included
- The application home screen would have a map interface with pins that represent where events are happening.
- Application would allow users to post their own events on the app that other users could register and participate in
- Application will allow users to register for events that have limited capacity so that those events can manage all attendees

Important
- Application would have filters to select relevant events (example: filters like distance, length of activity, genre of activity, etc…)
- Event planners/organizers can set a range of participants, a maximum number of participants, edit the events page in the app, etc...

Could be included
- The user would be able to set their application mode to 'active' or 'passive'. In active mode, they would be able to get live event recommendations and notifications depending on their time and location. In passive mode, the user has the ability to manually search for events at their own discretion.
- Application could let users push out public invitations that other users within a reasonable radius, age, and similar interest would receive to come participate
- Application could link to other social media applications (so we could outsource functionality like polls and forums and image sharing)

Appendix:

Appendix A: Survey & Questionnaire
Questions asked on Google Forms: https://forms.gle/j1FWfmPFyZw7TWBd7
1) Have you ever used event planning applications? (ex: Showpass, Eventbrite, Meetup, etc.)
2) What are your favourite kinds of events? (Check all that apply)
3) How many times a month do you go out to events (on average)?
4) How do you currently find the events that you attend?
5) How long do you usually stay at events for?
6) On a scale of 1 to 10, how outgoing are you?

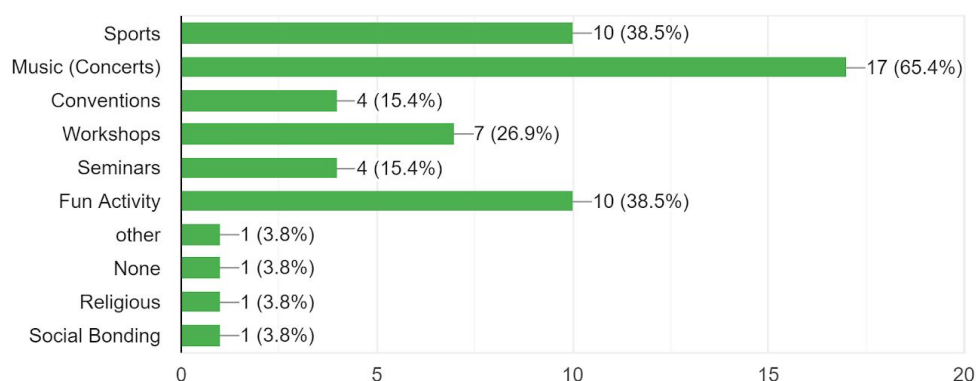The data collected from our survey:

Have you ever used event planning applications? (ex: Showpass, Eventbrite, Meetup, etc.)
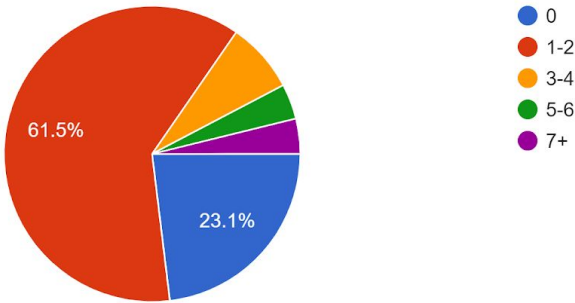26 responses
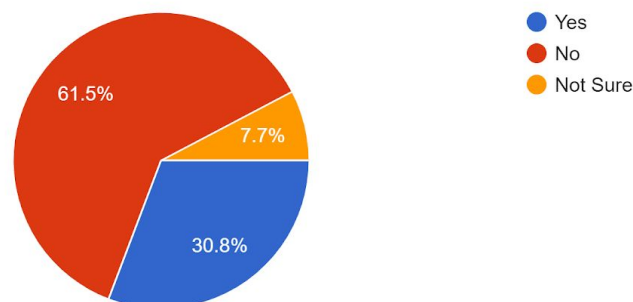
What are your favourite kinds of events? (Check all that apply)
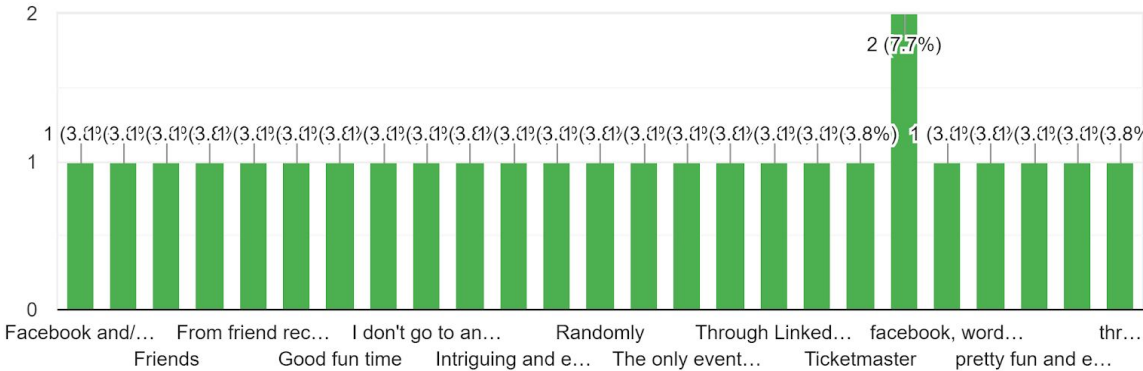26 responses

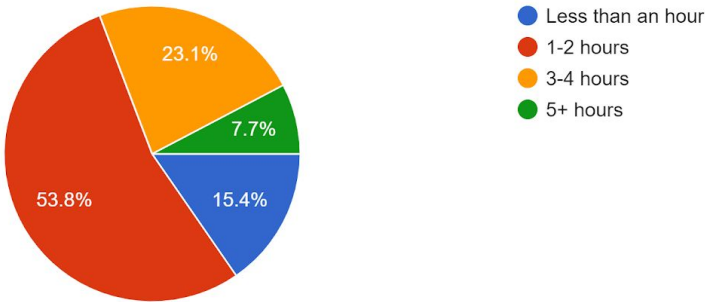How many times a month do you go out to events (on average)?
26 responses

- 0
- 1-2
- 3-4
- 5-6
- 7+

61.5%
23.1%

This question had issues with the wording (what went poorly)

How do you currently find the events that you attend?
26 responses

2 (7.7%)

1 (3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%)(3.8%) 1 (3.8%)(3.8%)(3.8%)(3.8%)(3.8%

Facebook and/…　From friend rec…　I don't go to an…　Randomly　Through LinkedI…　facebook, word…　thr…
　　Friends　　Good fun time　Intriguing and e…　The only event…　Ticketmaster　pretty fun and e…

How long do you usually stay at events for?
26 responses

- Less than an hour
- 1-2 hours
- 3-4 hours
- 5+ hours

23.1%
7.7%
53.8%
15.4%

On a scale of 1 to 10, how outgoing are you?
26 responses
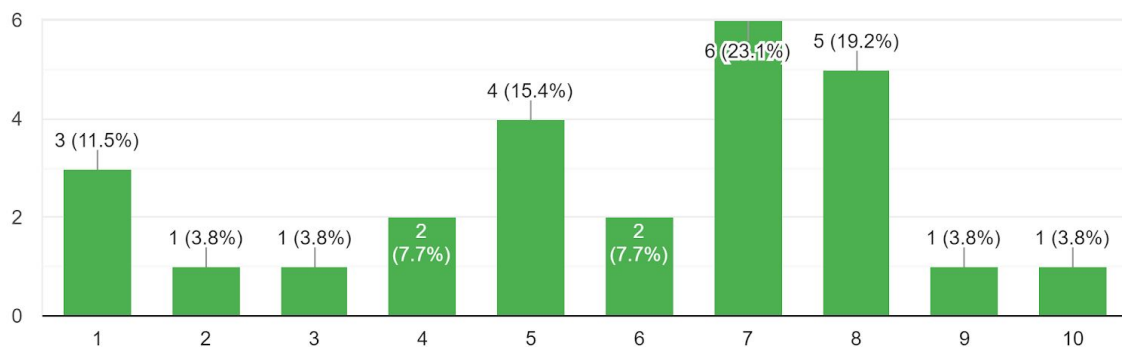
Appendix B: Competitive Product Survey
1) How Friendly is the display of the event site?
2) How easy is it to make an event on the site?
3) How easy is it to see and visit other events?
4) The impressive feature that we found and should be in our system.

- Eventbrite: https://www.eventbrite.ca
- Meetup: https://www.meetup.com
- Airbnb: https://www.airbnb.ca
- Facebook: https://www.facebook.com

Eventbrite:
- A bar on the top stating the different categories of events that are taking place either today or very soon allowing customers to easily identify the events that they would be interested in and find the type of events that they would like to visit.
- Allows users to search up events if they are interested in a very specific event. It also allows the searches to be filtered according to Date, Category, Format, Price, language and currency. This can help the user find the specific events that the customer may be looking for
- Every event which is free has a tag saying that it is free and allows users to also only look for free events, this feature could be enhanced by also stating the price of the event if there is a cost to visit the event
- Allows the users to share and like events, liking an event also results in it being saved. This feature makes it easier for the customer to collect all of the events that they would like to visit.
- When you sign up for an account it asks the customer to select their interests for example music. Following this a customer could select subfields such as pop if that is the only type of music that they are interested in, or they can select many different kinds of music. This feature applies to all categories and interests.
- The customer should be prompted to select whether they are interested in online events or in person events and in the case of in person events it allows you to select specific places where you are trying to visit such as Calgary or Vancouver. This

setting should be changeable and the person should be allowed to select both in person and online. This feature would enhance the product especially during the pandemic where users may not want to go to events in person.

- Once all of the interests have been decided it shows you the channels that most frequently post events belonging to those interests, that the customer could subscribe to. So that the customer would be updated whenever that channel would post a new event

- For free events when trying to sign up you simply have to select the date when you would like to participate and click register, in case of paid events it will make you pay for the event before you get to register in order to ensure that the seats are not taken by people who might not visit. After registering the customer will receive the ticket which they can print out or save online and present when they visit the event.

- The customer can contact the organiser for further details or information.

- When trying to make an event it asks the customer to select the type, category and subcategory of the event that the customer is trying to construct.

- Can make a single event or a recurring event. In case of a recurring event it allows the customer to select how often it will happen such as daly, weekly, monthly. Customers can also edit what days the events will take place and after how many events the event will expire.

- The customer can add pictures, videos, and text in order to better describe and explain the events better and also attract new people as well.

- Allows the event organizer to edit how many people can come to the event by setting the range of the amount of people that visit the event. Organizers can also decide when the tickets for the event become unavailable and can also decide the format in which they would like to sell the tickets. Whether in person, on call or through the app.

Meetup:
- The customer can create groups that will have a certain description that users could join. Furthermore members of the group can share an event within the group and all group members will get a notification for the event.

- Also this feature allows users to construct events that the members can be invited to so it helps build a community feature in the app

- It should show how many people are already going to the event

- Similar events should be mentioned at the bottom of any event so that users can sign up and see other similar events.

AirBnb:
- The display of the airbnb app is pretty simple and really intuitive so it makes it very easy to navigate

- A map function showing all of the events taking place near the user and the price of every event. This will allow the customer to better examine how far the events are and how much they will cost. By clicking on the event it will show more details such as the event details, number of people going, what the customer needs such as equipment if any, how long it will be, what is the maximum number of people that will be there

- Add a messaging service if we could in order to better contact the event organizer, as some people may not feel comfortable giving out their phone number

- Have highlighted tabs when details of the events are looked at so that certain promoting features may be highlighted, for example free food, drinks, equipment, certificates and etc
- Have a review feature so that users can leave a review on an event that they went to so that future customers could have a better idea of what the event is actually like (applies to recurring events)
- Asks what type of participants that the organizer is looking for when creating an event
- Also ask what type of place location the event is being held

Facebook:
- Allows customers to select another option called interested so that they are not taking up a place even though they might not end up visiting, but it still shows how many people are interested in a certain event
- Also have a calendar feature so that a future event automatically gets added to the calendar and when the day of the event comes it will give the user a notification for the event.
- Sending an invitation to a single person resulting in that person getting a notification for the event.(Could be added to the group share feature)

Appendix C: Scenario Testing

Scenario 1: Looking for Something to do
Suppose you have an unexpected day off with no other responsibilities for that day. You can simply take the day off and enjoy it as you see fit. Now you want to find something to do, but you don't want to just settle into old routines, you want to find something new to do! Of course, if you just go out and look for things on your own you might come up short. But you don't want to waste any of your time researching new things to do, after all, there are probably some things you already KNOW you want to do. Suppose then that you had an application on your phone that, when turned on, would actively search for events around your current location that are related to your interests and notify you if any meet your requirements. This way, you could go out and start enjoying your day off, enjoying the things you KNOW you want to do while at the same time discovering new things when your app finds an event near you that would be of interest to you.

Scenario 2: Getting the Word Out
Suppose you're planning an event. This event can be almost anything you want. It can be a one-time affair like a basketball game or maybe it's a recurring thing like a book club. Regardless of what it is, you've made all the preparations; you've gathered all the necessary supplies and set up all the infrastructure. Now, you just need to get the word out and get like-minded people participating in your event. You could probably set up a website for your event or use other social media platforms to get the word out. But not only is this tedious and time consuming, but also unnecessary if your event is just an informal one-time affair. Instead of fooling around with any of that, what if you could just open an app on your phone that lets you post your event and all its details on a kind of virtual community board. Other people who also have the app and have it set to filter for similar interest will then see the event you posted in their feed and can get all the info they need to start participating in it. You could also post updates and changes for your event as they become available,

informing participants of changes in time and location due to things like weather or traffic conditions and so on.

Scenario 3: Drumming up Business

Suppose you are a small business owner and you want to drum up more business. You've already done things like setup a website as well as pages on various social media sites but you find that you're still not getting the traffic you wanted. You find that your current methods of advertisement, like social media and the internet, are too static, people still have to do a lot of work to search for and discover your business. You figure you'd get more traffic if your advertising was more active. What if you had a way of specifically targeting the people who were actually interested in your products and what if your business itself had a way to "ping" and notify potentially interested customers as they came nearby? Now suppose you discover an app that did just that. Suppose that app let you post weekly events and deals for your business on a kind of virtual community board where interested parties who also had the app, and had their filter settings configured properly based on their interests, could see your business's events and deals and get all the information they needed to participate. Also, suppose the application had a kind of 'active' mode where it would scan the nearby area for other people who also have the app who, again, have their interest settings configured to include things like your business, and notify them of the deals and events you have going on that day.

Results:

Participant Name	Feedback/Opinion Scenario 01	Feedback/Opinion Scenario 02	Feedback/Opinion Scenario 03
Participant 1	- Don't want the app to "stalk" me. - Want "blackout" periods where you don't get any recommendations. - If there was a feature where you would ask to suggest stuff at a particular time or maybe have a switch to be always on. - Like the idea of not getting random events and have the events more geared towards your interest.	- Is there a broadcast level to say just your city, block, country, only people who have connected with me? - What if you don't sign up? Can you not participate? - I usually go to recurring events without signing up, and just show up, and the planners are fine with it (first come first serve) - Is there any money involved in the events or are they just free? - And if you charge people for the event (informal) how do you manage that? - Directly receiving money? - If i put out an event	- As a business owner, I want to know how the users are interacting and I want to be able to treat them in a nice way. - Find a way to attract more customers by "respecting" people on the receiving end. - Don't like the idea of bombarding the users with business ads.(Invasive advertising) - What if i put in only 1 interest. Am I only gonna see businesses that have to do with that 1 interest? - Does the app have adaptive learning where it knows your

		can people trust it will happen? - Do people get a "credibility rating" over time? - Why not just use something like Facebook to broadcast your event and people will be notified? (How can this app be better than Facebook?)	other events you've been to and then recommends those types too? - How do you prevent the user from getting flooded with notifications about different businesses that might be of interest to you? I would like the ability to stop getting those notifications but not like going to the setting and turn off specific settings and then remember to turn it back on later. - After turning off notifications, how would i find out about that business if they make some changes and they're now better (cancelled culture) - I want to be able to turn off certain notifications for a while because the notifications were getting "annoying" - there would be something to know why you turned off the notifications in the first place
Participant 2 (Qianru)	- I like it if i'm going out with someone not really when i'm alone - i don't want to be notified all the time, i want to open the app myself and check the events myself. - Works on a budget so would want to see filters that would be applied for the costs on events - Want the ability to see all events regardless of the filters applied in	- really likes the idea of being able to post custom events - Will be able to meet the right people who are interested - wants to be able to know the number of people attending their event (RSVP) - want the ability to make the event open to the general population - what if my interest change and i forget to	- love the idea to attract customers - feels like the filter settings might potentially cause for the loss of a customer if their settings was not configured properly and your business was filtered out as a result (accidentally) - Want the ability for people to rate their business - Be able to

	settings.	update in the settings, will the app 'know' what i'm interested in? - if there is an entry fee, i want them to pay online when they RSVP so i know they are coming, I don't wanna deal with people who just say they're coming but don't - If the seats are full, I want a waitlist for my event that I post.	"subscribe" to the person's events and see all future events that they will hold.
Participant 3 (Dwayne)	- great idea to find events near you - want active vs passive modes - don't wanna be notified all the times - want to be able to filter events and also wants the ability to explore all events and be more involved. Might not know interests when first using the app but wants to see what they might or might not like. - great to quickly find activities to do when alone or with friends.	- Don't like how the post will only go to this one app. Wants to post it on other sites but wants the app to be somehow able to find the event from other social media sites (get all relevant info too) - likes getting the word out to only people who are interested. - With big events, I want to broadcast it to a lot of people not just those who are interested. Especially for an official recognized event like a fundraiser and just want a general population. - Want events to be "reviewed" by some moderator to ensure safely, and legitimacy - Big special events like fundraising must pass certain requirements such as being a "certified event", a "recognized poster" - There should be options when you post events to limit the number of people who can attend, people should be able to register and RSVP so i	- all ads are selective like this so the app is not really special in terms of using it for advertising. But i'd love it because its free! - would like the idea for app users to rate their business and as it becomes more popular somehow broadcast it to a large population. - more "stars" (higher rating) should give my business events a higher preference and "urgency" setting. But then if you have a low rating, then you might not show up first :(- Rating should only be by those who attended the event and have some sort of proof. - I don't just want to post business events I wanna be able to send out coupons to potential users who are interested. - wanna see count of people who are planning on attending and those who viewed event. - want users to be able to see my future/upcoming events.

		know how many will be attending - For paid events pay in person or pay online to "reserve" seat. (will open doors to fraud) -	
Participant 4 (Dave)	-Thinks that such an app would be a really great idea (believes there is an unfulfilled demand for this kind of app) - Would want the filter setting to be very well refined (not too general with too few filter choices but also not too specific with too many filter choices) - Thinks the application should factor in travel time when suggesting events (don't want the app to tell them about an event that will be over by the time they get there) - Would want priority settings in addition to interest settings for event filters so that events that align with their most important interests are suggested first	- Really likes the active aspect of event planning in application (appreciates being able to update and change the event details in real-time) - Also likes the idea that the events he posts will only be seen by people who care (is bothered by the idea of posting an event that will be seen by people who don't care and will maybe judge or harass the event) - Would like to see a suggestion feature in the application for future events that the user may not have found in their feed yet ("Because you attended these events here are some others you might like")	- Thinks the application would be great for small "diamond-in-the-rough" /"hole-in-the-wall" businesses that are very good at what they do but don't receive the attention they deserve because they're in a lesser known area - would want to see a joint review and rating system for events (participants could post some kind of score for the event along with a review detailing their thoughts about it) - would want the application to notify users who are interested in the event about things like capacity (would want to know if slots for an event are filling up)
Participant 5 (Lian)	Really likes the idea of the app searching for things to do on her behalf as she's usually too busy to do research on her own. At the same time she thinks it might sometimes be inconvenient to get notifications while she's out because the timing might be bad (if she's out that usually means she's already busy, so she's concerned that the notifications would	Really likes the idea of having an app dedicated to event planning for her to set up her own events. She especially likes the idea because she's not very familiar with website building (and thinks even blog builders like wordpress would still be too tedious). Would much prefer having an app on her phone that she could just quickly open up and	Was actually very put off by this scenario. She considered it from the customers perspective and thought it would be too annoying if the application started notifying her about deals from business as this would be too close to advertising (She hates ads and wants to avoid them as much as possible). She thinks it would benefit small

	only serve to tell her what she's going to miss)	expeditiously plan an event on.	business and would be willing to accept it if it was constrained only to small business (worries that if large companies used it it might make app very obnoxious)
Participant 6 (Jacen)	Thinks that an application with such a feature would be great for when he's on vacation since he usually likes to wing it and not waste time researching things to do while he's there. He feels he might not use this feature as much while he's at home because he's already busy enough and he's familiar with his home city enough that he feels he might not need it	He thinks that it would be great if he had an application like that. He thinks it would be great for planning flash mobs since he was part of one once and says the biggest challenge was finding participants in a public context while keeping things discrete. Also thinks that if the app has such event planning functionality that there should be additional privacy setting so that event organizer can control who sees their events (not just anyone who's interested but also those that the organizer wants there like friends and family)	He thinks that our app would be particularly relevant in the future business context as he thinks that because of the pandemic many businesses are looking to online applications to help supplement their business (ex: small family owned restaurants are signing on with skip the dishes and so on). So he thinks our app is a good idea that will capitalize on this. Also really likes the idea because it makes getting into contact with more essential services like plumbing and electricity easier when contact with them matters most (told a story of how his heating went out and he had to flip through yellow pages while freezing in his home to find a furnace repair place)