



# Efficient and Scalable Systems Support for Mobile Group Formation, Inference, Recommendation and Classification



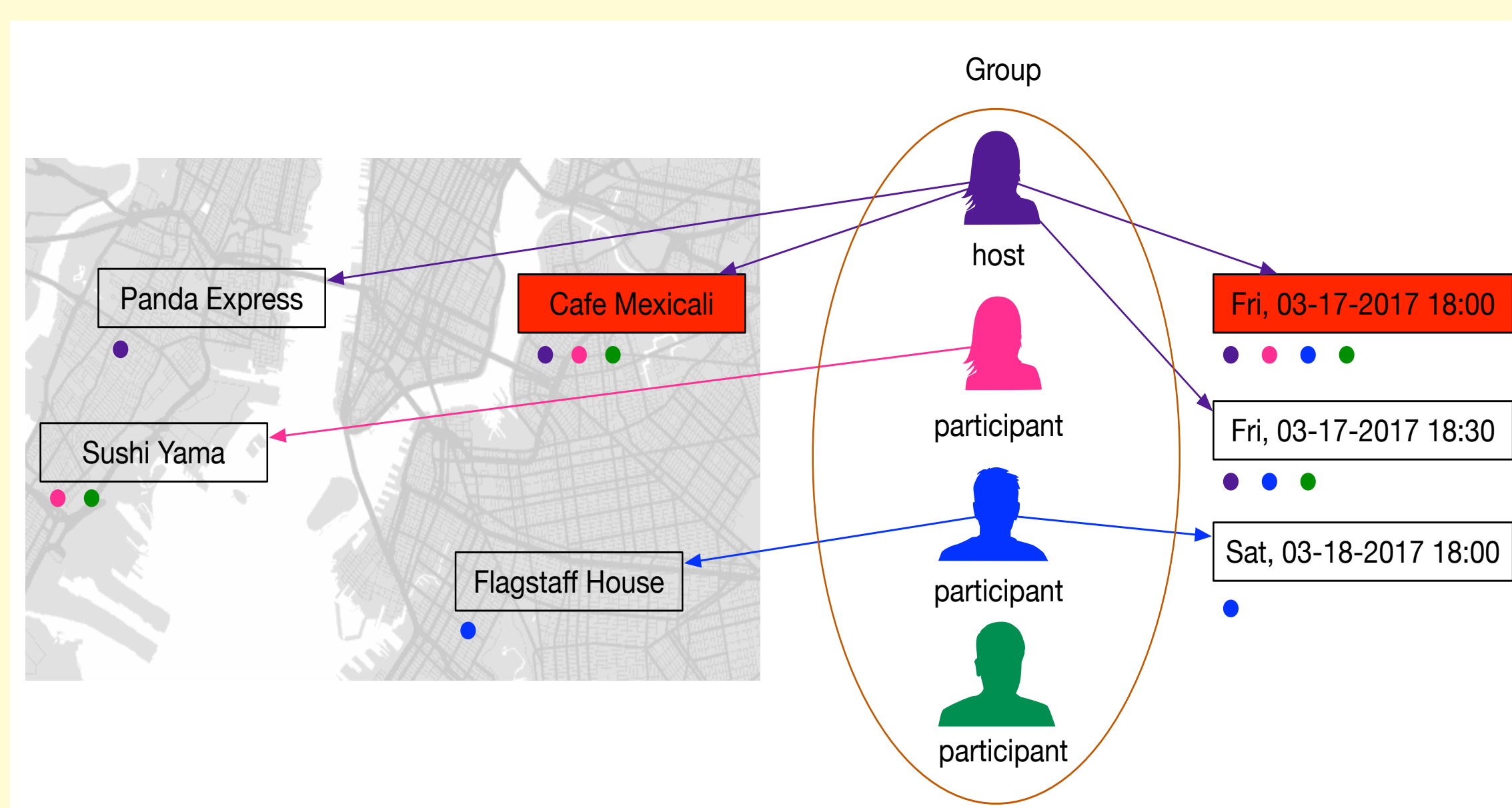
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## 1. OutWithFriendz Key Elements

OutWithFriendz is a mobile application that enables groups of people to decide together through a voting process the **date/time** the group would like to meet as well as the **location**.

**Figure:** The key elements of OutWithFriendz.

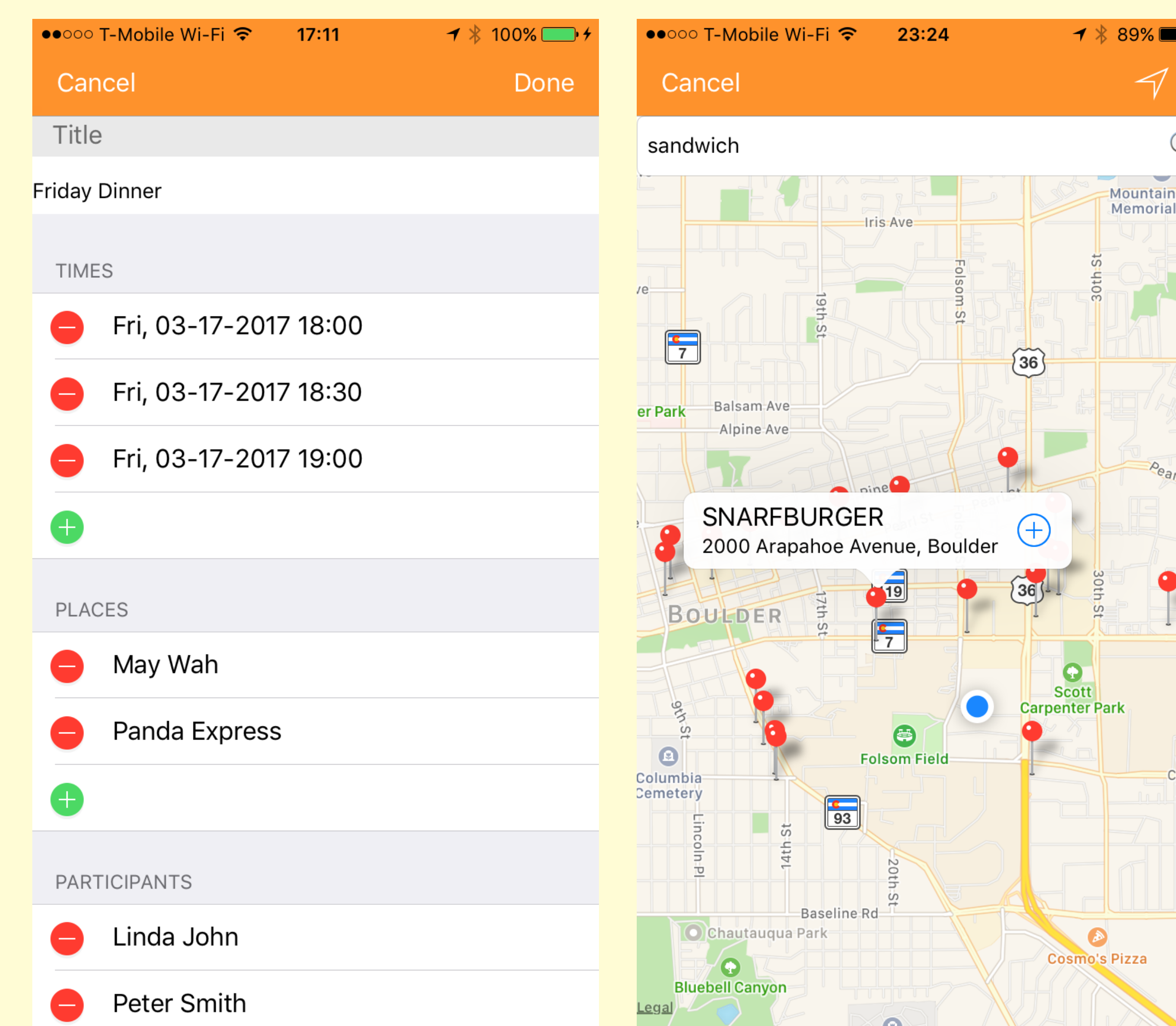


## 4. UI Design Challenges

For improving UI design, we started with an initial usage survey before releasing the app to the market. During our survey, we hired seven students on campus who have different academic backgrounds. Their suggestions include:

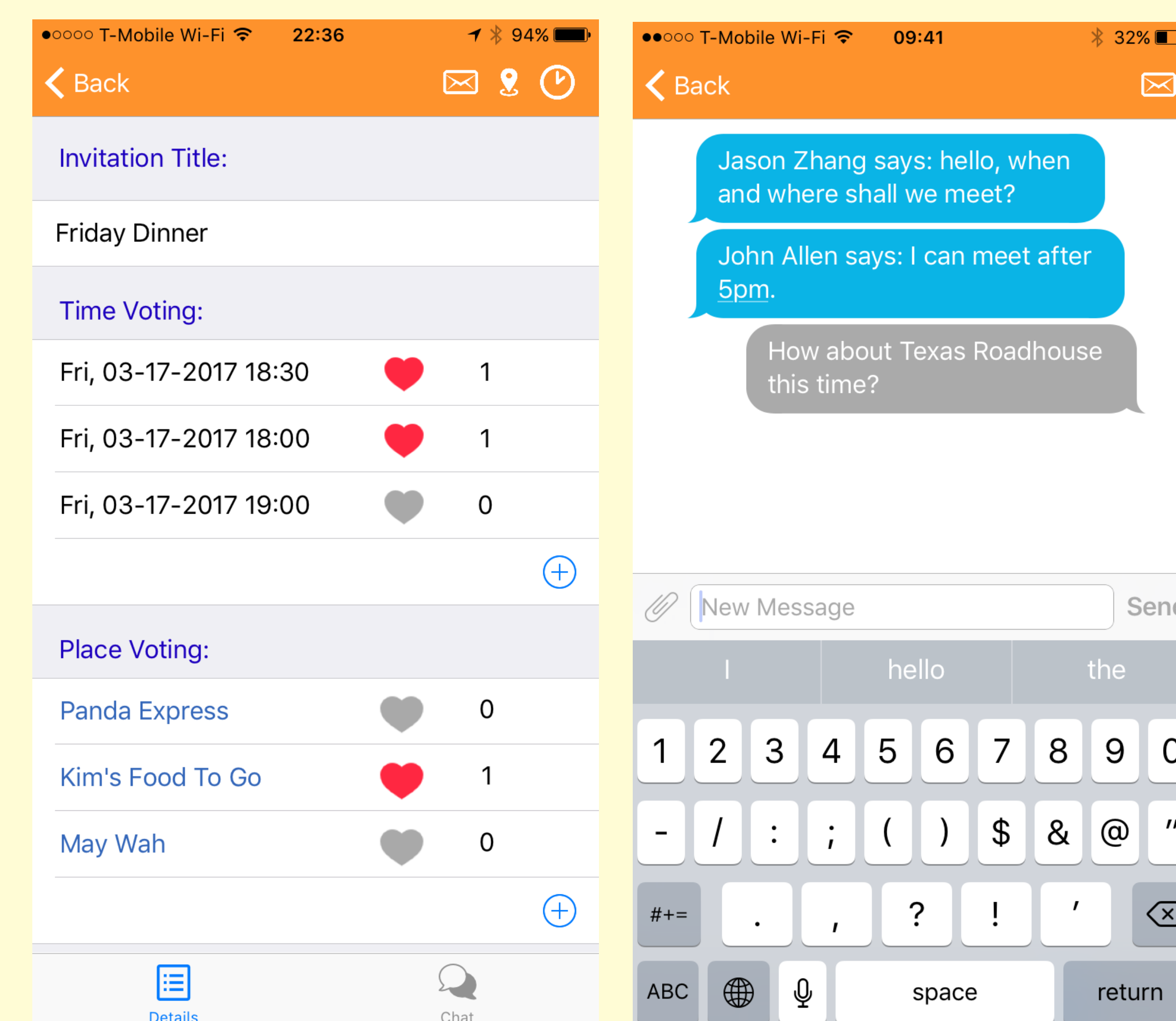
1. Adding a chat board to allow group members to discuss their opinions;
2. Allowing users to edit the location title and provide detailed information for each location;
3. Allowing users to link suggested locations with the Google Places application;
4. Pushing notifications if an invitation is created or modified;
5. Replacing text buttons with interactive icon buttons.

## 2. Work Flow



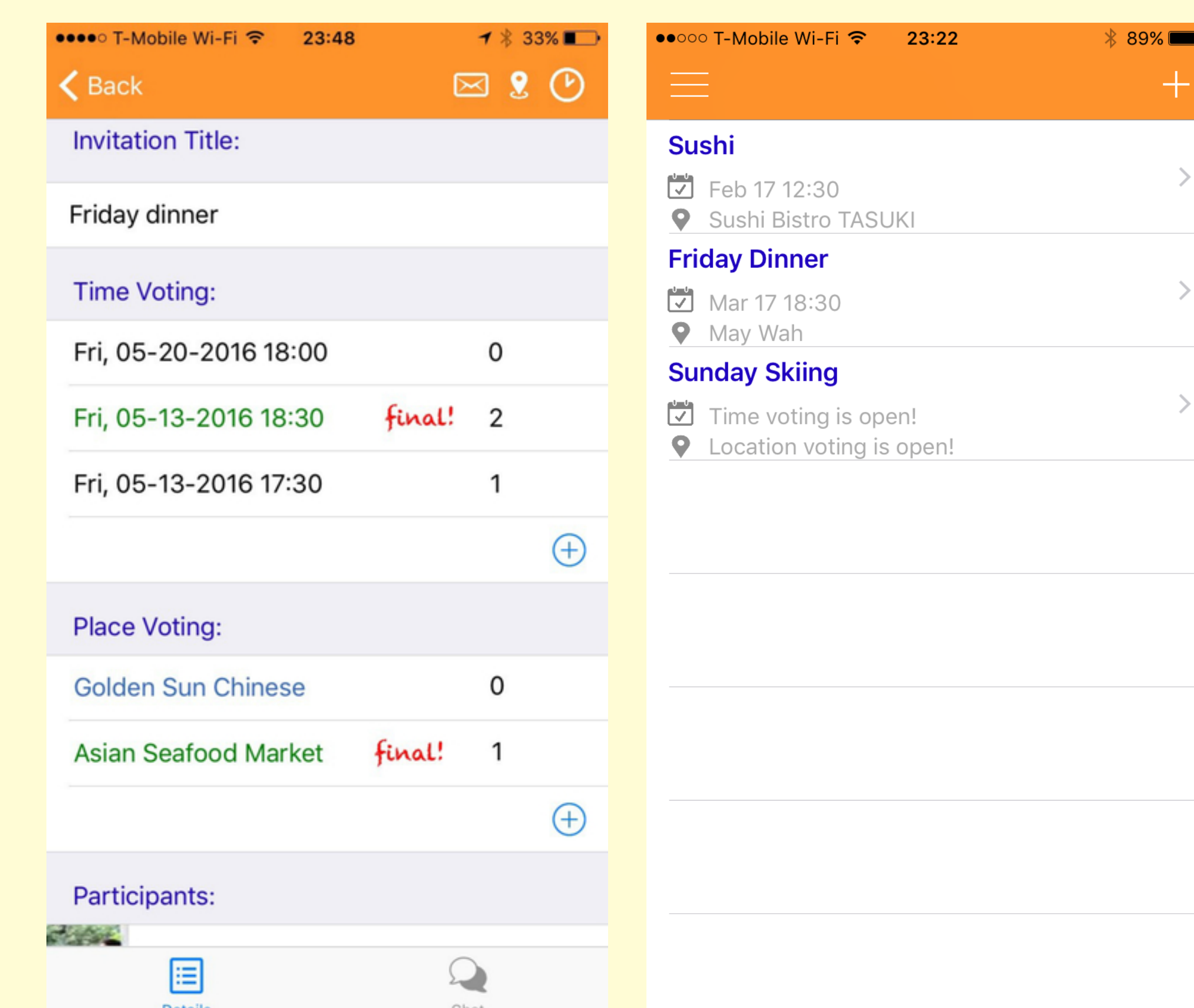
(a) Create invitation.

(b) Add location.



(c) Vote

(d) Chat Screen



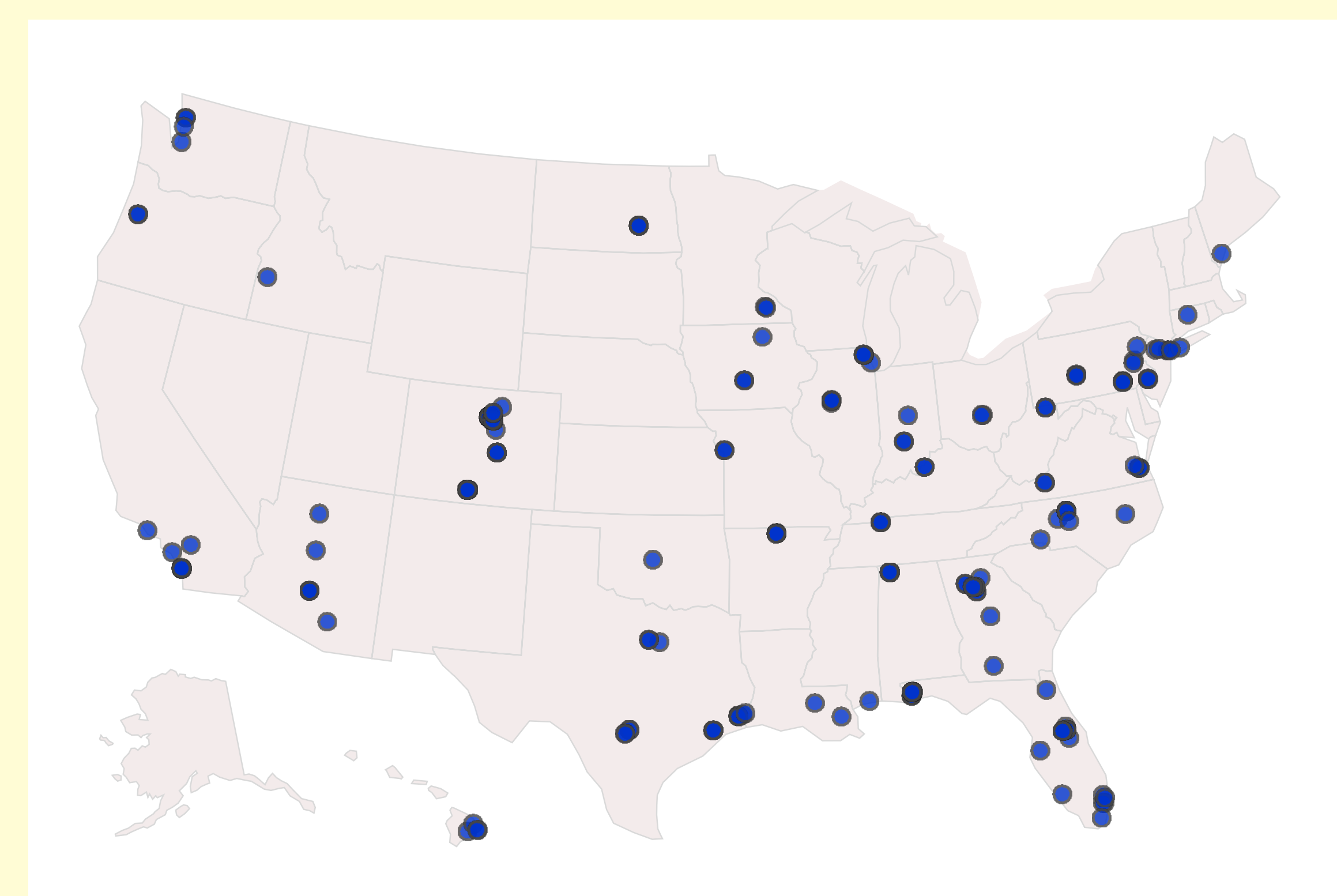
(e) Finalize

(f) Invitation List

## 3. Geographic Locations

In total, 503 distinct users of our OutWithFriendz app were identified, generating 322 legitimate invitations. Our users are widespread in 34 different states and 81 cities all over the country.

**Figure:** The geographic distribution of all finalized locations across the US.



## 5. Future Works

1. **Expanding event coverage:** we hope to grow our user base through more effective advertising, so that we may achieve viral adoption and gather data at even larger scales.
2. **Facebook friends requirement:** We plan to design an 'Add Friend' function which enables users to log in and connect with other users directly within the application.
3. **Group recommendation:** Building a distributed system implementation of mobile group recommendation will help us gain a better understanding of mobile group dynamics in the real world, and provide useful suggestions for group organizers.