Brendan Lindsey

Final Project Proposal

Project: An iPhone app that assists in identifying times where people can meet. A user can create groups of people and add the times that specific people are available. The user can then generate a list of times when all the people are available (or n-some number).

Users will be able to generate calendar events and emails to share the results (Optional project criteria 1).

While ideally this would connect to a server that allows for users to share groups and schedules, the time frame to implement that is larger than the time I have. As a substitute, users will be able to export/import files generated by the app that contain a person, group, or group of groups (please let me know if this satisfies ”Something interesting/complex not listed here, with instructor approval”).

I would also like to make people be movable between groups but I don’t know if there will be time to implement that.

To facilitate development and make certain a final product is delivered, I intend to develop various iterations of the app. See the mockup of the major elements for a potential milestone 1 UI included in this repo.

- Milestone 1: A minimum viable subset:
    - Allows creation of people/groups
    - Allows entry of availability in a single, Sunday through Saturday, week
        - Start date will need to be set by user
    - Outputs available meeting times per group
        - No calendar/email or import/export yet
- Milestone 2:
    - Allow calendar/email output
    - Allow data entry of multiple weeks
        - Potentially arbitrary length from 1 day to 52 weeks instead of just multiple weeks
- Milestone 3:
    - Allow import/export
    - Support n-x people matches
- Due Date
    - Flex time for fixes, extra feature implementation, or other needs

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Core Data Entries:

- Groups
    - Name
    - UUID
    - Contains many-to-many relationship to users
    - Start date for schedule
    - End date for schedule
    - Contains a one-to-many relation to Availability
        - stores previously computed group availability so changes to one do not require querying all members' available times
- Users
    - Name
    - UUID
    - Contains a one-to-many relationship to Availability
    - Contains a many-to-many relationship to Groups
        - Inverse of groups relationship
- Availability
    - Day
    - Month
    - Year
    - Start
    - End
    - Contains a one-to-one relationship to a User
        - Inverse of a User's availability relationship