Courtney Gosselin - 60188160
Wasi-ul- Hassan Raza - 59715748
Anne Brecklinghaus - 61016655
London Taylor - 11603157
Dr Mohammad (Khalad) Hasan
COSC 341
Nov 4, 2018

Family Schedule Application
Project Step 4

Description:
The Family Schedule Application is a way for a family to keep track of each others activities in their daily lives and future plans. The first major task was how an individual can view their schedule. The schedule can be viewed daily, weekly, or monthly. In the paper prototype the add event button was near the top right we moved it to the bottom right to give us more screen space. We also chose to not implement the monthly view because of the amount of space it took up. It was very wide and clunky. The second major event was how an individual edits their daily activity. The event side images were removed because it was taking up a large portion of the side, to help with that we took some out to take out crowding. The final major task was the parents approving requests to the calendar for the children. No longer does a pop up to accept child request, instead the application has an own section where you check for requests.

Three Major Tasks
1. View calendar as daily, 3-day, or weekly
2. Add events
3. Parents approving kids requested events

The largest task we could think of as a collective was how to view different time frames like daily, 3-day, and weekly views. Another task would be how an individual edits, adds, and deletes the events in their calendar. Finally, since this app is made with the family in mind we needed to restrict access to events and the adding of events form the children.

Vertical Prototype:
The vertical prototype below addresses all 3 of our major tasks we discussed along with the associated design principles and how we applied them.
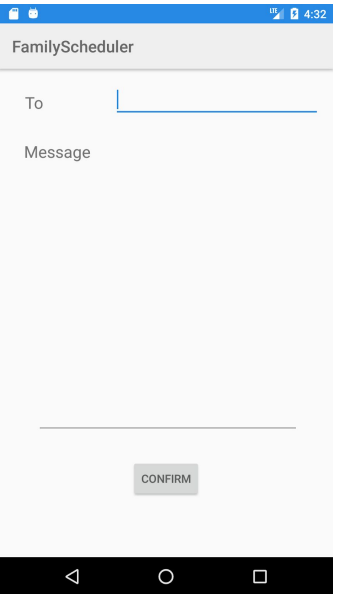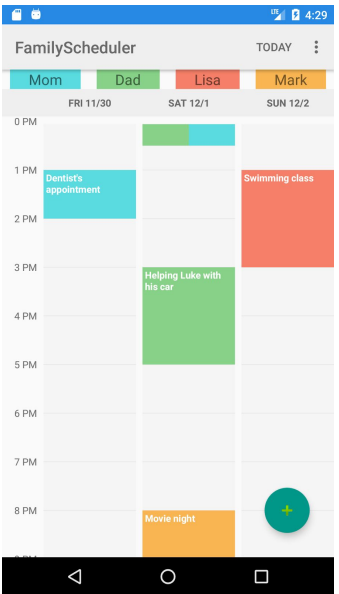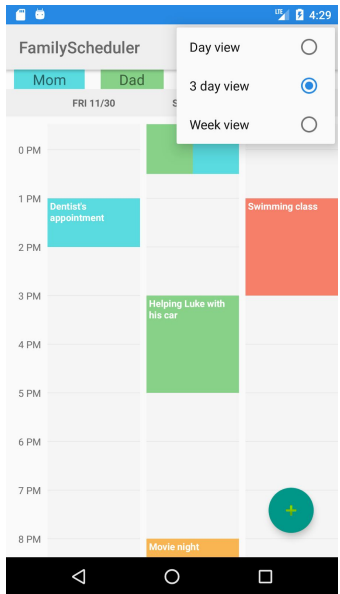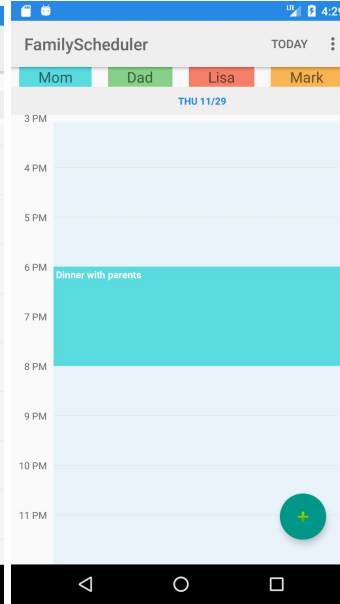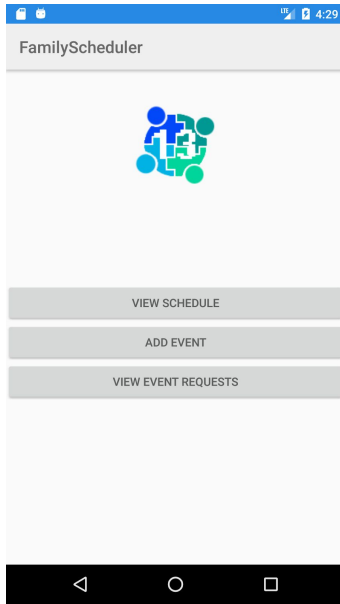
Design Principles Applied:
A description of the design principles applied.
- Visibility:
    - We did this by supplying a drop down menu for the different views so that the individual can choose between whether they want day, week or month
    - Using a dot menu/hamburger menu gives an ability to make more option available to the user.

- Feedback:
  - Visual - the screen updates with the selected option.
- Constraints:
  - For selecting times and dates in the application they are not typed in by hand making it so that only the proper information can be entered. We used date pickers and time pickers in our application to avoid human errors.
- Consistency:
  - We used several API libraries throughout our app to help make each activity have a familiar look and make the application feel cohesive.
  - We also kept with industry norms for where delete buttons should be for example since it's a lot of muscle memories for users and they're likely to click a button before fully understanding what it does.
- Affordances:
  - Drop down items instead of swiping to an option along the top was used along with a three dot implementation.
- Simplicity:
  - To keep the app less crowded we made it so that week view only shows five days considering an individual's major scheduled tasks for a family will be during the week and weekends will be seen later in the week if its a monday you will only see monday-friday on out week view.
- Matching:
  - For this section it is matching the real world up to our normal system language. So for us sending an event view email doesn't need to be that in depth but informing the individual that the event has been added is important.
- Help:
  - User is able to edit events in the chance their is a mistake. In the event they added making it easy to do corrections.
  - Along with the pickers we used making it easier for an individual to input the proper data without much thought.
  - Toasts to provide error messages to the individuals inputting the data

The first screenshot is our homescreen. This is where a user can navigate to their schedule, add an event, or view event requests sent by the children when logged in as a guardian. In the child version of the app they can view the schedule and suggest events to guardians in the app who have to approve it. The next four images represent the different views that we made with our app. The individual can view their schedule as daily, 3-day, or weekly. Image six shows how the kids would request an event which is done through email. The seventh image shows what happens when you click on an event, which is giving a detailed explanation of the event. Next is what an individual sees when clicking "view event requests" on the home screen. Here they can add or deny requests. Finally, we have the add event screen which can be navigated to by clicking add event on the homescreen or by clicking the green plus you see on the view screen. For an event to go through, all proper information has to entered.

Screen 1

FamilyScheduler

Name   Dentist's appointment

Start: 00/30/18   01:00

End: 00/30/18   02:00

Location   at dentist's

Person   Mom

DELETE EVENT

Screen 2

FamilyScheduler

Event Requests

Request by: Lisa
Name: Katie's birthday party
Date: 11/30/18
Start Time: 18:00
End Time: 21:00

ACCEPT   DECLINE

Request by: Mark
Name: Soccer with Lukas
Date: 11/30/18
Start Time: 15:00
End Time: 16:30

ACCEPT   DECLINE

Screen 3

FamilyScheduler

Event Name

Date of event

Start Time   All Day

End Time

Location

Person: Mom

Reminder: 0 min   min. before

ADD EVENT

Please enter an event name

ADD ATTACHMENT

Screen 4

FamilyScheduler

Event Name

Date of event

Start Time   All Day

End Time

Location

Person: Mom

Reminder: 0 min   min. before

ADD EVENT

SEND INVITE

ADD ATTACHMENT

Heuristic Evaluation:

Task 1: View Calendar as daily, 3-day, or weekly for a specific person or specific people
- **User 1:** Currently the name of some events repeats in all calendar views.
  Violated heuristic: Aesthetic and minimalist design
  Severity: 1 - cosmetic problem
  Recommendations: For this issue we were able to locate a bug in our code that was causing a repetition and made it so the name of the event only appeared once
- **User 2:** Swiping option is enabled for the individual, however this is not obvious one may look for arrows as an alternative.
  Violated heuristic: Recognition rather than recall
  Severity: 1 - cosmetic problem
  Recommendations: show arrows which indicate that swiping is an option or provide arrow buttons which can be used to change the day(s) shown
- **User 1:** Would prefer a drop down of the day view for selection instead of 3 dots, which would be easier for navigation.
  Violated heuristic: Aesthetic and minimalist design
  Severity: 1 - cosmetic problem
  Recommendations: provide a drop down
- **User 3:** Why does the time in the calendar always start at 12 instead of at the current time of day
  Violated heuristic: Match between system and the real world
  Severity: 2 - minor usability problem
  Recommendations: start at the current time of the day or the earliest time of an event on any day which is shown

Task 2: Add/Edit Events
- **User 3:** When adding or editing an event if you select a time that ends in 00 then the event only shows one zero
  Violated heuristic: Aesthetic and minimalist design
  Severity: 1 - cosmetic problem
  Recommendations: show both zeros
- **User 2:** When adding an event if you put in inaccurate data it is not added but it does bring you back to the main page as opposed to staying on current page.
  Violated heuristic: Error prevention
  Severity: 3 - major usability problem; important to fix
  Recommendations: stay on the current page and show an error message saying the cause why the event cannot be added

Task 3: Parents Approving Kids Event
- **User 1:** Suggests a home page could have a request for all events to be added to the calendar to have a section on the main home page.
  Violated heuristic: Control and Freedom
  Severity: 2

Recommendations:

<u>General Issues</u>
- **User 3:** Aesthetically would prefer more colours or for the app to be more appealing.
  Violated heuristic: Aesthetic and minimalist design
  Severity: 1 - cosmetic design
  Recommendations: Try different android studio themes. Perhaps try to match the colours to the logo we designed for the application
- **User 1:** Home page requested for easier navigation
  Violated heuristic: User Control and Freedom
  Severity: 2
  Recommendations: Home page was made with three options: view schedule, add event, and look at requests made from the guardians children.

Future Changes/Bonus:
For the future we can implement even more tasks to our application. For the mean time we have taken our heuristic evaluation along with recommendations made to change the app for the better. Starting with the worst severity. Based on the severity the adding event toast error was first tackled. We made it so that the individual is not redirected and stays on the current page. Next issue would be the homepage users wanted for ease of use. The homepage we implemented would take the individual to the schedule, add event, and accepting and denying requests.

As for what we changed post evaluation included changes from the suggestion from our users. The names no longer repeating on events. A drop down added where before we had the dot menu. A home page was added for easier navigation. When adding an event it no longer redirects to the home page if wrong information is entered you stay on that page with a toast message. These were the largest error hindering our application. We also implemented the use of a database for easier use of the application and moving forward.

Video:
https://youtu.be/ekTncUEZtqs