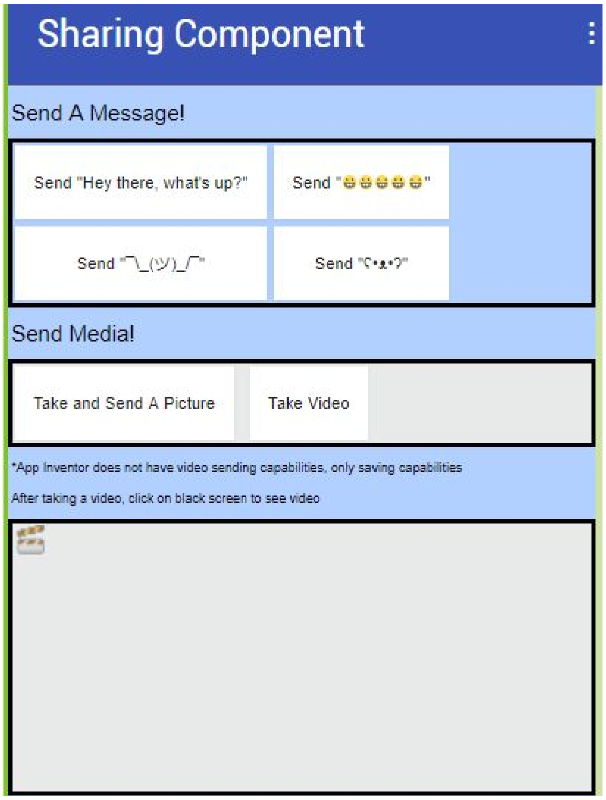
Sharing Component

A Simple Way of Messaging

Developed by: Siri Phaneendra and Jonathan Wei



*App Inventor does not have video sending capabilities, only saving capabilities

After taking a video, click on black screen to see video

	Beta Version	Final Version
.aia Files (Source Code)	CSP2_ Phaneendra_Wei_Sharing Component_Beta.aia	CSP2_Phaneendra_Wei_V2.aia
.apk Files (Packaged App)	CSP2_ Phaneendra_Wei_SharingComponent_Beta.apk	CSP2_Phaneendra_Wei_V2.apk

Table of Contents

Part 1

Original App: Android, Where’s My Car?

Topic Ideas

- **Android, Where's My Car? for App Inventor 2**
  Android uses it location to record the car's GPS coordinates and address. When you reopen the app, it will show you a map and directions from your current location to the car's location.
- Pizza Party with Fusion Tables for App Inventor 2
  This database app collects dinner orders from different people and stores them in a Google Fusion Table. People can use Web Viewer to look at the entries in the tables. The table can be read publicly or you can give permission to others to write in the table.
- No Text While Driving for AI2
  If you're busy and can't read your text messages, this app can auto-respond to incoming texts and it can speak the incoming text using it's voice.

Android, Where's My Car? Brainstorming Ideas

- After the app opens Google maps in a separate tab, the current location will automatically be inputted into the search
- App will directly have a google maps feature on the app and will not open Google maps in a new tab; when consumer presses buttons, the saved car location and current location will be inputted into the Google Maps search on the app
- Even if the app is closed, the app will send out notifications (directions) on the phone screen
- The app currently depends on Google Maps; we could try creating our own maps and directions system
- **The first screen will have the name of our app and the motto**
- The consumers can save their future locations (or commonly visited locations) as "home" or "work"
- The app will automatically save locations you visit often and the consumer can click the address and input it as the current location/car location
- **The consumer can send the car's location to another person**

Idea 1: The first screen will have the name of our app and the motto

- Title: Car Tracker
- Motto: Need help finding your car? Find Your Car In Minutes!

Idea 2: The consumer can send the car's location to another person

- The consumer can click a button on the app and it will automatically create a text message (and they have to type in the person they want to send it to)
- The link that will be sent to the person will be the Google Maps directions from their current location to the car

As a team, we decided to incorporate idea 1 into our app because we felt we can accomplish this during the given timeline and complete the app constraints.

Tiers: Android Where's My Car

Basic Idea: This Android app will store your car's location and when you want to get directions to your car, it will go to Google Maps and give you directions to your car from your current location.

Tier 1: Basic Features

Make it physically appealing:

- Modify the background (light blue)
- Add a title component

Tier 2: Improvements

- Change "remembered place" to car location to avoid confusion
- Change "show directions from current to remembered" button to "show directions from current location to car"
- Remove the "remember my current location" button as it automatically saves your current location
- Remove the GPS coordinates
- Code a feature that will save the current location and remembered location as an address
  -it will copy the address to Google Maps
- The first screen will have the name of our app and the motto

Tier 3: Cool Features

- App will directly have a google maps and will not open Google maps in a new tab
- After the app opens Google maps in a separate tab, the current location will automatically be inputted into the search
- Even if the app is closed, the app will send out notifications (directions) on the phone screen

Feedback From Our Peers:

- I like how the notifications will still pop up even when the app is closed
- Easy to use and automatically saves everything
- I really enjoy how the user experience is being accounted for (saving locations, not opening Google Maps in a new tab, etc.)
- Seems really helpful and effective
- It would be nice to have a list of multiple addresses/locations saved
- Maybe send the location to other people so they know where you are

9/24/18 - *Unfortunately, we realized that MIT App Inventor no longer has the capabilities of coordinating with Google Maps and hence, does not enable the "Android, Where's My Car" app to work. For this reason, as a team, we decided to choose another app.

Part 2

New App: Sharing Component

Sharing Component Brainstorming Ideas

- **Have the capabilities to send a video**
- User could be able to personalize message sent
- Camera screen would be on the app itself and not require the user to open a new tab
- Allow the user to edit pictures and then send it
- User can change the order of the attachments
- We are currently dependent on Gmail, could develop our own messaging app
- **Have the capabilities to send a gif**
- User can save his/her email so every time they don't have to sign in their email every time
- User can send multiple messages/pictures/videos all at once
- We could use different email services than gmail in case the user doesn't have a gmail
- Allow user to enable notifications for the app
- Include a tutorial on how to use the app
- Allow the user to create a message they could instantly send like "Hi!" and that could be saved as a button they could use from now on
- Allow user to share their location with a GPS component
- User can access camera roll and can send those photos
- Allow user to save people's emails so they can easily message the same people
- A face timing component
- Can call other person through the app itself

Idea 1: Have the capabilities to send a video

- User can take a video on the app, video will be saved onto the app, and then will open the messaging platform (preferably Gmail) and will automatically attach the video

Idea 2: Have the capabilities to send a gif.

- User can select a gif on the app from the Google Images, gif will be saved onto the app, and then will open the messaging platform (preferably Gmail) and will automatically attach the gif

As a team, we decided to incorporate idea 1 into our app because we felt we can accomplish this during the given timeline and complete the app constraints.

App: Sharing Component

Tier 1: Basic Features

- First screen will have a title and our motto
- Change the background to the app to make it more appealing
- Title and motto will be on the same page as the 2 buttons

Tier 2: Improvements

- Consumer can share videos as well
- User can save his/her email so every time they don’t have to sign in their email every time
- User can send multiple messages/pictures/videos all at once

Tier 3: Cool Features

- Camera screen would be on the app itself and not require the user to open a new tab
- Messages can be modified to what the user wants it to say
- Allow the user to edit pictures and then send it
- We could use different email services than gmail in case the user doesn’t have a gmail
- Include a tutorial on how to use the app
- Allow the user to create a message they could instantly send like “Hi!” and that could be saved as a button they could use from now
- Allow user to enable notifications for the app

Feedback from our peers:

- Pretty neat idea for sending pictures easily and on-the-go
- User UI should be a pretty high priority since the use itself seems simple
- Customization for UI?
- What other things can you share besides pictures?

Beta Gallery Walk

<table>
<tr><td colspan="2">Instructions: Open the “Sharing Component” application. With this app, you can conveniently send messages or media in seconds! Click any of the buttons to send messages, emoticons, pictures, or emojis. Your chosen attachments will automatically be attached to your mail, all you have to do is type in your contact details. With a click of a button, you can quickly and easily send a message to your friends and family!</td></tr>
<tr><th>Pro: Features Liked</th><th>Con: Aspects that were confusing, buggy, or etc.</th></tr>
<tr><td>● The responses are cute and friendly!
● This is really similar to the google smart response :)
● Functions properly
● Works great as shortcuts for sending emails/messages</td><td>● Needs better shortcuts that just emojis.
● You could put more variety in your emojis
● The coding itself was very simple, and there wasn't a lot of messages to send.
● It’s way too basic
● Could use the messenger app instead of email
● Could add more messages to send
● The app is very basic and has limited functionality
● Maybe add more features rather than just using it to open other apps</td></tr>
</table>

Beta Gallery Walk Reflection

Even though we lost five days of work time, due to MIT App Inventors Where’s My Car App not working, we feel we accomplished the basic level of functioning of our app in our short amount of time. We definitely agree that our current Beta app is simple and we are planning to incorporate more ideas, including sending videos and other types of media (gif) in addition to using different messaging platforms, including Messages or Whatsapp, instead of Gmail only. We are happy that our current, basic app components work without any issues, but we are open to more improvements. Overall, we feel good about our progress and are ready to work to improve our code and app.

Final Gallery Walk

<table>
<tr><td colspan="2">Instructions: You can send messages (text, emojis, or emoticons) or media (pictures or videos) with our app. Select the type of message or take the picture you want to send, and it automatically redirects you to gmail, where you can send the message/video to whoever you like. Also, you can select to take a video, saving it. Click the black screen at the bottom of the app to watch the saved video. Make sure you read the small black text under the “take and send a picture” and “take video” buttons. Have fun! :) We appreciate your feedback!!</td></tr>
<tr><td>Pro: Features Liked</td><td>Con: Aspects that were confusing, buggy, or etc.</td></tr>
<tr><td>● I like the messages that you are able to send such as the shrug one :)
● As a base, the UI is alright. Could be better but it is a great start. Sending messages
● UI is much cleaner than what I saw in the beta version
● I really like the video function as it was able to show the video live on the app. - Nathaniel Issac
● I enjoyed the different lens function to do inverted colors and other colors</td><td>● Limited number of messages you could send
● Once you’re in photo mode, there’s no way of going back to the main screen
● The messages are limited. Maybe create a text box to allow for custom messages.
● Messages are too limited, you should be able to save custom messages and store them for future purposes.
● Not enough messages, and the black screen was quite small.
● Not enough space for the video to show
● The app crashed when when I tried to take a picture.
● Not able to actually take a picture or video</td></tr>
</table>

Reflections

Siri - Overall, I gained a lot of knowledge on the coding aspect of apps and I especially strengthened my skills on global variables and troubleshooting. One of our difficult tasks that we overcame was incorporating the video sending component on our app, but after days of research and work, we realized that MIT App Inventor does not have the capabilities of sending video files (but our app can save the video though) so we put a feature in substitute of sending videos. I learned the importance of saving our drafts and writing comments because we were sometimes lost in our code and even accidentally deleted some code, which we were able to get back because of our continuous saving. The comments we got from our peers were very helpful because it gave us new ideas and improvements we can put in our app and new perspectives were very insightful. I especially learned how to work ahead of problems and manage to put in our 100% effort, despite the fact that we lost about four days due to technical difficulties because MIT App Inventor could no longer support our original app, the “Where’s My Car” app, but these hardships are part of our app development process! I feel like I learned a lot about coding and many important qualities, including working together on a team and making and following a timeline.

Jonathan - Although we ran into many problems while trying to develop an app, I now have a lot more knowledge in how to program apps. Because the first app we were originally going to develop wasn’t working properly, we fell behind and had less time to brainstorm ideas and incorporate them into our second app. We also ran into a problem in video sharing with our app, only to find out MIT app inventor isn’t able to share videos because the file size is too big. Peer feedback gave us more insight on what to add on to our app. But overall, the app looks much better and is easier to use than before. This experience as a whole was very useful for me and can help me in future programming projects I have to complete.

Daily Log

9/18/18

Siri - We accumulated our top three ideas as: Android Car Tracker, Pizza Party Tracker, and the No Text While Driving app. After discussing our timeline and app constraints, we decided to choose the Android Car Tracker.

Jonathan - We decided our project was going to be, “Android, where’s my car?”

Both - We both brought out our thoughts and opinions on what to do, and we settled on something we both wanted to improve upon.

9/19/18

Siri - We wanted to see the sample code work to help us brainstorm new improvements, so we connected it to the tablet and saw the app’s screen layout and capabilities. Based on our app’s basic functions, we decided on few more improvements.

Jonathan - We copied the code into our project, and connected it to the tablet.

Both - We looked at the layout and functionality of the app to see what kind of improvements we could make as a team.

9/20/18

Siri - Today, I ran the sample code and saw the current features of the app. I worked on the three tier chart and prioritized our ideas based on the time deadline and feasibility.

Jonathan - I worked on the tier charts and brainstormed more ideas.

Both - We brainstormed ideas into our tier chart based on the functionality of the original code.

9/21/18

Siri - After discussing and finalizing our brainstorming ideas with my partner, I presented our three tier chart to our peers for their opinions and suggestions.

Jonathan - I added my brainstorming ideas, and got feedback from peers.

Both - We finalized our ideas together and went to peers for feedback and suggestions.

9/24/18

Siri - Since we heard that the Where’s My Car does not work, I started brainstorming new ideas and improvements on our new app - The Sharing Component. At home, I brainstormed more ideas and suggestions that we can incorporate.

Jonathan - The app we were originally going to improve on doesn’t work, so we chose a new topic, the sharing component

Both - As a team, we thought up of solutions to our problem and worked and talked together for a long time, really thinking of a new topic that would be good, and we settled on one we both agreed on.

9/25/18

Siri - I presented our second app’s brainstorming and plan. I started coding the tutorial and decided on incorporating more improvements, similar to those of our peers.

Jonathan - I got feedback on our 2nd app idea, tested the app using my personal email, and added instruction on how to use the app. We worked well together because we both kept coming up with good ideas and tested the app frequently.

Both - Together we analyzed the feedback for our new app improvement ideas.

9/26/18

Siri - At school, I found some resources on TinyDB and started implementing and testing new ideas. At home, I attempted sending videos with TinyDB for three hours, but it did not save the video on the Android device. I worked on the app and added more components, including sending emoticons, emojis, messages, and media (pictures).

Jonathan - We had trouble with getting the video sharing component working, so we looked up on how to fix it using TinyDB. We also installed the app for the beta gallery walk.

Both - We had a problem with the video sharing improvement component, and we both kept on looking for solutions.

9/27/18

Siri - I was proud of the amount of work I put in into the coding. When getting feedback from our peers during the gallery walk, I was happy that our current app components work, and I am ready to work hard on improving. At home, I worked on improving the code (specifically the part of sending the video through Gmail). Also, I worked on our documentation and ensured that all of our requirements are initiated.

Jonathan - Our feedback was expected (for me at least) because I knew we didn't have enough time to implement more ideas into our app. At home I started organizing the notebook to make it look better.

Both - Both of us worked on organizing the documentation, and we decided to keep going on the same path we were originally going with in improving the app.

9/28/18

Siri - I have continuously been finding different ways to approach this situation of storing videos on the code from the past three days. I am getting help today from Mr.Brown as to how to store videos.

Jonathan - I worked more on the documentation and making it look professional. At home I will keep looking for solutions on how to fix the video sharing error we keep running into.

Both - We discussed what else we needed to add on the documentation and what we could do at home to try and find the solution to the current coding problem we are facing.

10/1/18

Siri - I worked with Mr.Brown to try incorporating the videos capabilities. I learned that MIT App Inventor has the capabilities of storing the video, but not sending a file as big as a video.

Jonathan - I wasn't in school or home so I was unable to work.

Both - Although Jonathan was not at school, we still communicated on what we needed to get done and put tasks on our checklist.

10/2/18

Siri - I noticed that the videos save on gallery, so I am currently trying to see if I can get the file name and somehow incorporate the video. I was able to save the video and allow the user to play the video on the app screen. MIT App Inventor does not have the capabilities of sending videos, mostly because it is a large file size.

Jonathan - I worked more on the documentation and brainstormed more ideas we could potentially code and use for the gallery walk to make the app more advanced and has more options/settings the user can control.

Both - We are getting close to finishing the main components of the app and we are communicating on adding final touches that could make the app a lot more useful.

10/3/18

Siri - Today, I focused on the layout of the app and made sure that there was enough place for all of the components, especially the video component (which requires a lot of space). After downloading the app onto the tablet, I made sure that the layout was perfect.

Jonathan - I looked up videos on different codes we could potentially use.

Both - We still tried to get the video storing working, putting this component on a timeline so we could know when we needed to finish it and how much time we needed to get it to work.

10/4/18

Siri - A new issue arised today - the video component was not playing on the entire black screen and I did some research as to how we can solve this.

Jonathan - I worked on TinyDB code so we could incorporate the idea of the capabilities of sending personalized messages.

Both - We both worked on getting the personalized messages component working for the app.

10/5/18

Siri - I finished working on the app. Since the video component was not working, I tried experimenting with the different video property settings, and finally got it!! I made final changes and packaged it, so that it is ready to go for Tuesday.

Jonathan - I did my project reflection and at home on the weekend I finished completely organizing the project notebook and made any final changes we needed.

Both - We are done with this project, so we installed the final version and organized/finalized the documentation.

10/9/18

Siri - Over the three day weekend, I ensured that all of the comments were there and clear and finished my individual reflection. On Monday, I attached the Final Version links onto the front page and uploaded it onto my Google Drive folder, designated for Computer Science.

Jonathan - I finished organizing our project notebook and fixed the table of contents.

Both - We communicated over the weekend of what things we needed to complete for our project