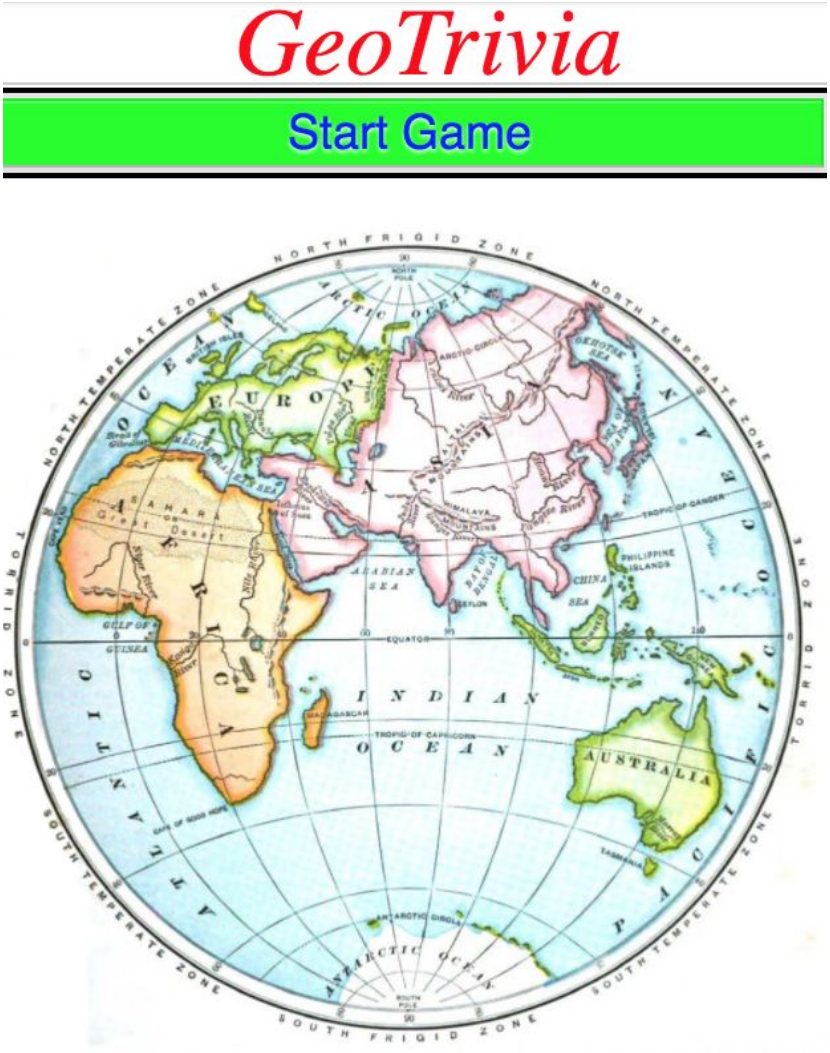
GeoTrivia

Developed by Avi Patel and Thomas Meagher



	Beta Version	Final Version
.aia Files (Source Code)	CSE#5_Patel_Avi_GeoTrivia_Beta.aia	CSE#5_Patel_Avi_GeoTrivia_Final.aia
.apk Files (Packaged App)	CSE#5_Patel_Avi_GeoTrivia_Beta.apk	CSE#5_Patel_Avi_GeoTrivia_Final.apk

Table of Contents

Brainstorming

- We can make an app that shows all of the different volunteer opportunities in Dublin, we give the location of where it is at, and when you click on the location it gives a brief description of the volunteer job
- We can create a yelp like app, it shows all the restaraunts in the area and we can have a filter that gives the type of restaurant it is and what food it serves.
- We can make an app that gives you all the emergency hospitals in the bay area in case of emergency
- We can create an app, where you can see the distance between two locations and get the locations
- We can create an app where you can find all of the tutor groups in the east bay and see the reviews of each tutor group
- Locate the nearest exercise areas, whether it is a gym or personal trainers. So people can stay healthy and get some exercise
- Locate all healthy restaurant and find all of the stores that sell healthy foods, say calories and what foods they sell there
- We can create an app where it shows the best vacation spots, and it gives a description on what you can do there and how much it costs.
- Create an app that shows the biggest tourist attractions in the world, and it gives a little historic description of what it is and how it came to be
- We can create a weather app where it shows the weather of each city in the bay area.
- Locate all the major cities and see the highest real estate value for each city.
- Gps, shows where you are compared to where your restaurant or volunteer opportunity is
- Add a back button to the map, so you can go back to the home screen.
- Create an app, where you have to study geography to answer questions

Top two ideas

- Volunteer website(original)

We were thinking of an app that locates all of the volunteer opportunities in Dublin or Pleasanton. We would use a website that lists all the addresses of local volunteer places and insert it into our database, so that points would come up in the map of where they are located. Also, when you click on the points, we would write a brief description or summary of what the volunteer job is like and how many hours you would have to volunteer for.

-Yelp App(original)

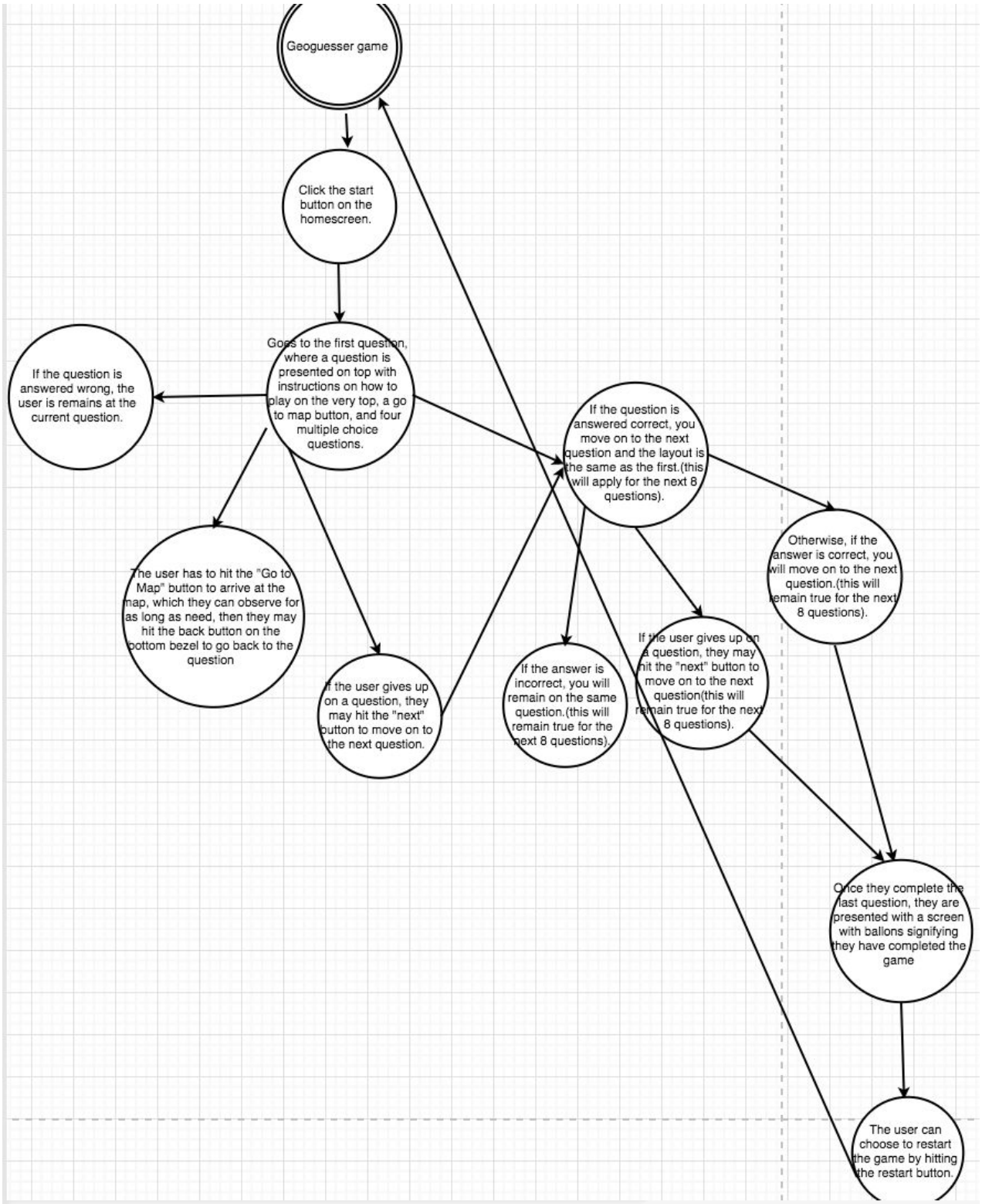
We thought about making an app like a yelp that can find things to do in the given area by searching google through the app and finding places to go. It would have to somehow interact with google search, and store the values of a data base. It would have to use a web scraper.

- Geography Trivia(after further testing.)

We were thinking of an app where you have to study the map screen of google maps and use that map to answer the questions that later followed. We would have around 10 questions about different locations in the world. We wanted the game to be multiple choice to make the game more interesting, instead of a text box.

- So we chose to go with the Geography Trivia game because the volunteer opportunity app would have been way too complicated to code in only a 2-week span. The yelp like app is not unique in any way and would also be too complicated to code in the two week span and we realized that coming up with an algorithm for web scraping in app inventor would not be the most time conservative idea. Also, we chose geography trivia because It would be be a project we were sure we could make in the two weeks and at least meet Mr. Brown's basic requirements. There were also not much apps like it on the google play store. It would stand out from the crowd.

Flowchart


Geoguesser game
Click the start button on the homescreen.
Goes to the first question, where a question is presented on top with instructions on how to play on the very top, a go to map button, and four multiple choice questions.
If the question is answered wrong, the user is remains at the current question.
The user has to hit the "Go to Map" button to arrive at the map, which they can observe for as long as need, then they may hit the back button on the bottom bezel to go back to the question
If the user gives up on a question, they may hit the "next" button to move on to the next question.
If the question is answered correct, you move on to the next question and the layout is the same as the first.(this will apply for the next 8 questions).
If the answer is incorrect, you will remain on the same question.(this will remain true for the next 8 questions).
If the user gives up on a question, they may hit the "next" button to move on to the next question(this will remain true for the next 8 questions).
Otherwise, if the answer is correct, you will move on to the next question.(this will remain true for the next 8 questions).
Once they complete the last question, they are presented with a screen with ballons signifying they have completed the game
The user can choose to restart the game by hitting the restart button.

Feedback from another group(this was before we decided to scrap our ideas and move for a geography game.

- Try to make the Map It feature be an original app, don't try to copy any other apps
- Improvise flowchart by adding more specific details
- Use the map feature to benefit the community, maybe use it to find some animal shelters or some food banks
- Have Accounts used for the game to personalize your interests of volunteer choices
- Have the game access your location so we can have a feature of "Locate Volunteer Opportunities Near Me"

Three Tiers of Progression

Tier 1	● We need to finish the tutorial ● We need to create a home page/start screen for our game ● Create a transition from homepage to google maps app ● Have a question with a text box ● Make a textbox to enter in the letter of your answer ● Once you answer correctly, head to next location ● Once done with all 4 questions have an closing page
Tier 2	● We wanted to make the game multiple choice. ● Add about 10 questions/locations to our game ● Try to add a button to the google maps page instead of shaking to go to the question ● Make the game multiple choice with 4 questions ● Have the game include a skip button if you do not know the answer
Tier 3	● We wanted to work with web scraping, but it was too complicated and we would not have finished it in the given time. ● We wanted to add a point system so there is a penalty to get answers wrong. ● We wanted it so it would move on to the next question if the answer is wrong and show the correct answer, and if it is correct make the app so it says that the answer is correct. ● Make it so there is a score and if you press the correct answer then it will turn green to indicate that it is right ● Add a hard and easy level

Beta walk

Instructions:

- Our game is called GeoTrivia.
- So our game displays a certain location on Google Maps and you have to correctly answer the question that relates to the location that was given.
- There will be 4 different locations and you must study each and every location to answer the questions that follow.
- Once you correctly answer all four questions, you have completed the game.
- To switch between the map and the questions,shake the Samsung Tablet very hard for response.
- All the questions will be based on the view that opens up when the map opens.
- There is a bug with round 2.

Pro: Features Liked	Con: Aspects that were confusing, buggy, or etc.
- Interesting way of moving forward in the game(shaking) - Great idea for the game - Intro. And title was pretty good.	● You have to shake the tablet SUPER hard to get the answer screen ● Instructions complicated, and too long ● Do not know how to play this game ● It's easy to get lost in the "Google Maps" part of the game ● Geo Trivia title should be a label, not a text box, so users are unable to change and edit the text ● You shouldn't be able to use the other features of the GPS which could make the user feel lost

Gallery walk

Instructions:

- Hit the start button to begin.
- When on a screen with questions, hit the "Go to Map" button to view the map.
- Hit the back button on the bottom bezel (near the home button) of the tablet to go back to the questions.
- Answer the questions of the best of your ability.
- If the answer is correct, you will move on to the next question.
- If it is incorrect, you will remain on the question until you can get the answer correct.
- Hitting the "Restart" button will take you back to the start so you can play again.
- Keep the tablet in landscape mode

Pro: Features Liked	Con: Aspects that were confusing, buggy, or etc.
-Like how the app takes you to google maps for hints to answer the question - Like how you have to use the back button to go back from the map -The map feature is very cool -I like how the you are able to go back to the map and to find the answer - the multi choice feature is great for the player. - the game is fun, it makes it easy for the user that you have a way to get back to the app, if you wanted to develop the app more, you could use a scoring system	-Slow-loading; doesn't load fast -Can't go back if accidentally remove address -should mark you wrong if you get it wrong instead of being able to guess every answer - Can't figure if the answer given is wrong. - Doesn't tell you if your answer is incorrect or correct -There is no penalty for getting an answer wrong. - I don't like how the answer are coloured red - If you move around, you cannot get back into the game.

Thomas Conclusion:

For the whole app inventor project, I feel like our development process of our app was very good compared to the scratch project. Despite not finishing out some tier three goals, at the gallery walk we ended up getting more pros than cons from the comments. Most of the bad comments related to not showing if you had answered a question right or wrong when clicking on a multiple choice answer. We would have updated our project to do so, if we had managed our time a little bit more. The only con I had from this development process was that we could've managed our time a lot better. One of the first obstacles we ran into, was choosing a good app that uses the map feature. It seemed that it took way too long choosing an idea for the app. Our first choice of an app did not work the way we wanted to and was too complicated to get done in two weeks. So, we had to resort to our 2nd choice on the tuesday of the first week. We wasted too much time on deciding an app, when we could've used the time to add features from tier 3 that could've made our app better. Also, our second obstacle we ran into was the shaking feature. We spent too much time thinking of complicated ways to have a screen transition from the google maps to the questions. We were thinking of complicated ways to do it, when we just needed to press the back button on the bottom bezel of the tablet. We just thought that we could have done a lot better job of time management. Most of the pros had to do with the map, and the button to take you to the maps and back to the questions. We are actually happy that the buttons for the map worked out well because we spent a long time trying to get that right. I thought that we communicated very well during school and outside of school. We used gmail and google docs commenting system to communicate outside of school to get the code right. Also, we communicated each day on what we achieved and are planning to do at home that day. For the first week, Avi was the main worker on the code while I worked on the project notebook and some pieces of the code. For the second week, we flipped jobs to make the workload as even as possible. Our development process was also good because Avi seemed to teach me about App Inventor and how to use it. Before this project, I knew nothing about the app so he did a good job of helping me out.

Avi Conclusion:

Overall I believed that this pair worked out pretty well overall. We ended up meeting the minimum requirements by the end of the project, though we were not able to add any of the extras we wanted to add such as a point system due to us crunching on time. Next time, to ensure that we finish before time and get to work on the extras. But to do so, we must manage our time efficiently. If a feature or key aspect does not work one way we should be proactive and try to come up with the most simple solution to avoid the crunch on time like we ended up with when trying to get our shaker thing to move screens to work. Compared to the scratch project, I feel that we were more acquainted with the development process compared to the scratch project.

Daily Log

Date	At school	Avi's Home	TJ's Home	Daily Partner Reflection - TJ	Daily Reflection - Avi
9/19	Today we chose to do the map it based app.		TJ - I started off brainstorming crazy ideas that include our map-based structure	We worked together nicely for the first time and mutually decided to choose the map it app. It was one of the advanced tutorials, so it challenged us, like Avi said.	The map was the easy answer for us due to the fact that it would challenge us and give us many options due to its openness.
9/20	Today we brainstormed ideas for the Map it and we started the tutorial for the Map It app	Avi - I worked on the tutorial some more and am halfway done with the tutorial	TJ - I added more ideas to the brainstorm list	We did a good job communicating and choosing jobs for the day. I would brainstorm different paths to take with the map it app and Avi worked on finishing the tutorial	At first the tutorial seemed intimidating, but after some time we got the hang of it. I wish I can copy paste code much like a text based language.
9/21	Today we are fixing up and organizing the project notebook and we finished the tutorial. We are adding brainstorm ideas after seeing what the app does		TJ - I made the first rough draft of the flowchart and I continued to fix up the project notebook	Avi has done well finishing the tutorial and finishing his job that had been tasked to him	The tutorial took more time than we intended it to, taking up much of the class period.
9/22	We shared our project with our second group and they gave us many		TJ- I finished writing down all the comments that our group gave us in our	Avi and I did a good job of the direction we want to take the app after	We were told that our ideas needed to be more original, helping us

	comments to help us improve on our code		project notebook	the peer feedback on our idea at that time	narrow down further.
9/23	No school		TJ - nothing	So far Avi has been a great partner	
9/24	No school	AP-added comments to the app	TJ - Today I modified the flowchart to meet our expectations	Avi has added comments to the tutorial, in case of the surprise comment check, like we discussed in class.	We should have commented the tutorial as we went to help us understand what we were doing.
9/25	Decided our idea would not be possible with the constraints android studio poses on us	Narrowed down our idea from a volunteer app to a geoguessr app. Started research on how to code it.	TJ - When our idea changed, I remodeled our draw.io flowchart to meet our game requirements.	Avi and I made an executive decision to switch up our code and to change our idea into a geography trivia game. We did a good job of negotiating and agreeing on the decision change	The idea that our app would not be possible with the given constraints on android studio made me think of something new to work on
9/26	We Started building our application: Got the maps and splash screen to work.		TJ - nothing	Avi made the first screen of the app, like we discussed in class, we are making progress on our app	At first, our app idea was easier than it seemed, until we got to trying to switch between the questions.
9/27	We brainstormed ways in which we can make it so that the maps can switch to the questions and add to the flowchart.	Avi-I narrowed this down to the using the accelerometer to shake for switching questions. Added the questions/answers to the app	TJ - I added 4 questions slots and their addresses to the code, so we can actually have a geo trivia game.	Avi has been a good partner, hasn't been too demanding. He does like to get the input from me on every decision which is a good trait when working	Coding the shaker was a breeze, no errors were present in app inventor.

		and the comments to the beta app.(Completed Beta).		together.	
9/28	We ran through the app to make sure it worked, and then we got our feedback from the Beta walk		TJ - I got our feedback from the beta walk and added some features to make the app better and match up the advice from our fellow peers	Our beta walk worked out great and we both discussed ways to make our app better and to take the app in the right direction	It was too hard to trigger the accelerometer, and made Mr. Brown pretty unhappy.
9/29	We worked on completing the bugs that occurred during the beta walk, and used the comments to try and insert them into the game		TJ - Most of our comments from the beta walk were about the shaking difficulties, and over the weekend we decided to check for ways to switch the screens a better way or to make the user only shake lightly	We were stuck on the shaking feature and we both went home to work on finding ideas so we can get past this obstacle quicker	The shaker would not work no matter what we did at the sensitivity we wanted it to. Mr. Brown suggested us to use some code.
9/30	No school		TJ - Nothing	So far, Avi has been a really helpful partner	
10/1	No school		TJ - I searched up ways to get a better response then the shaking, and I found a website that said to use a timer to try and switch screens from map to questions. I am going to present the	He's helped me code from the Mit app inventor and get a feel for the coding.	

			idea to Avi and test it out in class.		
10/2	To solve the shaker bug, we tried various sensors such as proximity sensor and timer. None worked and gave us errors.	A-At home, I experimented more with the timer. It apparently seems that now the app refused to close unless I restarted android. This made me give up work with the timer and resort back to the original idea of using an accelerometer. Though this time, I set parameters on the shaking so I do not have to shake too hard for something to happen.	TJ - While Avi was testing the timer, I adjusted the project notebook to our current status. Also, I searched on the internet for more ideas wondering if there was an easier way for the transition in case the timer didn't work. We thought of using a button, or speaking to the tablet, but all of those seemed to have errors when I tried to code them on mit appinventor.	Avi has done a good job of working on the shaking factor. Still hasn't figured it out but we are close to solving it	Nothing worked, making me super frustrated. We had to either come up with a new up from the ground up or figure this out.
10/3	The code that Avi did at home did not work as he was expecting. We had to scrape the shake to switch screens feature and resort to simply the back button. To quit the activity starter and go back to the questions, we would have to hit back. This led us to redo	Avi- switched from text to multiple choice, assigned the map to a button so the user has a choice if he or she wants to open the map	TJ - Found new locations for new questions (my wifi was down and was not able to code). I wrote down four more locations and addresses on a piece of paper to add to the code the next morning.	We have finally figured out how to overcome the obstacle and it has been a relief to get past it. We know are on to bigger and better things for the app	Mr. Brown told us that we could just use the back button on the tablet to switch back to the questions from the maps screen. This gave me a new hope. For the final version, we used the multiple choice, to make it easier for the user to work with the app.

	the game's layout.				
10/4	We bug tested in class, and Thomas worked on adding more levels to the application.	Avi Patel- Reviewed through the final code and added some comments and revised any bugs within the game	TJ - Finished adding the 4 more levels to our game, making it total 8 questions in the game. When done, contacted Avi to run through it using the emulator to check for bugs.	We finally finished the final version of the app and are up to speed for the final gallery walk	All worked perfectly as we expected it to, Thomas worked more on the app while I made sure the comments were up to standard. Our initial comments would not make the cut.
10/5	Today was the gallery walk. We downloaded our final version of the game into the android tablet and other people gave comments on our game. We ended up getting more positive comments than negative comments, which is a good sign	Avi - I updated the table of contents, wrote part of my conclusion questions, and put in the beta version and final versions of our games in the .aia files and .apk files.	TJ - I created the title page for our project notebook, revised the daily log, edited tier 3 of our tiers of progression, updated the table of contents, and finished the top 2 ideas and reasoning.	At the gallery walk we both made the necessary 6 pros and cons comments and we also gained comments ourselves. Most comments were good.	We got more pros than cons. Though most of the cons are things which we could have improved upon and had thought about, but had ran out of time.
10/6	Today we are finishing the project notebook. Avi will finish the flowchart and the his part of the daily log/reflection. I will finish my conclusion question and		I finished the conclusion question and the daily reflections and am turning in our project notebook	We are finishing up the notebook, so we can turn it in before 11:59	We put on the final touches on our notebook and made sure everything was up to Mr. Brown's standards.

	the daily reflection				