



	Beta Version	Final Version
.aia Files (Source Code)	CSP#_Xu_Sendhil_V1.aia	CSP#_Brown_V2.aia
.apk Files (Packaged App)	CSP#_Xu_Sendhil_V1.apk	CSP#_Brown_V2.apk

Mole Mash is a fast paced click game. Like it's physical form, Whack-a-Mole, Mole Mash's objective is to hit the mole 30 times within 30 seconds.

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## Brainstorming

- Fix the score when there is a vertical mode
- Start page
- Add levels
- Add a bomb instead of mole (a thing to avoid)
  - Touching it = lose
- Add a timer
  - Winning after certain score is met
  - Highscore counter
- Game over, level won screens
- Improve game aesthetics

## Final Brainstorming

- Start Page
- Adding an untouchable like a bomb.
  - May make you either lose or lose points
- Add a timer
- Highscore

## Feedback & Tier System

Tier System:	Description:
1	Start Page Timer
2	Bombs You Lose Page
3	High Score Timer

## FeedBack

Pair Share:
<ul style="list-style-type: none"><li>● <b>Timer on the screen</b></li><li>● <b>Have the mole span across the entire screen horizontally</b></li><li>● <b>Have mole wait get hit</b></li><li>● <b>Increase timer</b></li><li>● <b>Have a feedback for the mole getting hit</b></li><li>● <b>Have sounds</b></li><li>● <b>Make the layouts better</b></li></ul>

## Game Instructions/Comments

### Beta:

Instructions: Welcome to Mole Mash. To play the game, you must press start. After pressing start, you have 30 seconds to hit 30 moles. Good luck! P.S. there is no feedback for hitting it, so if you want to check for response go to the score.

Pro: Features Liked	Con: Aspects that were confusing, buggy, or etc.
<ul style="list-style-type: none"><li>• The game is fun and addictive</li><li>• Fluid animations</li><li>• The way in which it is very hard to whack the mole is pretty fun.</li><li>• The random generation of mole positions is cool</li><li>• Score aspect is well done but needs to be improved</li><li>• Has a level of difficulty in this game, which makes it harder to play.</li></ul>	<ul style="list-style-type: none"><li>• Should make the speed of the game faster</li><li>• Really use, just randomly tap and it works/gives points</li><li>• Add a timer</li><li>• Lots of white spaces, multiple “restart game” messages appear at times x 7</li><li>• Randomly pops up a white screen amidst the game or even resetting it.</li><li>• 4x You can’ play the full game and it bugs out mid game</li><li>• The game is fun but the height of the game area should be more</li><li>• Spammable tapping detracts from the game experience</li><li>• Needs to have feedback when the mole is hit from the user</li><li>• Moles are very buggy and it keeps on glitching out</li><li>• The screens keep on autocycling x3</li><li>• Can't get to the game for more than 10 seconds because of the cycling screen x2</li><li>• I don't understand how it works</li></ul>

What many people liked about our app is the way that it is fun, and they liked the mole moving around in random positions. Also, someone liked the score display and the level of difficulty of the game. There were many things in which we can fix. We can evaluate if what others said about the game’s improvement is true, and improve based off of that feedback. We can continue to make the game more complete, and let it have feedback, make the screens full, and let it glitch less. Also, we should give up some of our previous plans for the game, such as the bomb, to more focus on improvement of bugs.

## Final:

Instructions: Welcome to Mole Mash. To play the game, you must press start. After pressing start, you have 30 seconds to hit 30 moles. Good luck! P.S. there is no feedback for hitting it, so if you want to check for response go to the score. Due some issued with the noise in the game, there cannot be any response to hitting the mole

Pro: Features Liked	Con: Aspects that were confusing, buggy, or etc.
<ul style="list-style-type: none"><li>• The score feature and the goal is achievable</li><li>• The mole is very responsive and game does not lag</li><li>• The timer function is cool and adds a new aspect to the game</li><li>• I like how sometimes the mole teleports twice and is unpredictable.</li><li>• I like how the positions are randomized and there is a time limit to add difficulty</li><li>• I like how the mole looks when you tap it, it looks really good</li><li>• I like how a certain amount of time was given to beat the game</li></ul>	<ul style="list-style-type: none"><li>• The moles can be pressed multiple times in one spot</li><li>• Not sure if it is on purpose but the mole sometimes goes to a hole for a split second before stopping at one for a realistic time</li><li>• Stopping the score at 31 is kind of odd</li><li>• Why does the game not have a penalty if you did not touch the mole?</li><li>• If you spam tap every hole, you can easily beat the game</li><li>• It would be better if there was a high score instead of “beating” the game at a random amount of points.</li><li>• You should add different levels of difficulty, the mole should move faster.</li><li>• If tapped too much, the mole will teleport to different holes waaay too quick</li><li>• Can spam all the time making it easy to beat the game</li><li>• Timer doesn’t always finish counting</li><li>• Home screen is pointless (could add an instructions button)</li><li>• It would be cool if there was a leaderboard for fastest time or most number of moles depending on which you are counting the score by</li><li>• It’s better if you has a sound effect after each tap.</li><li>• Should show the score at the end</li></ul>

## Daily Log

Date	Sriram	Derek
9/18	Today we started to create the basic frame for the MIT app inventor project. I completed the design notebook and also helped Derek in creating the initial “frame”.	I did the Mole Mash tutorial today at home and in class. I also got the design notebook document from Sriram today.
9/19	Today we tested the new game on the tablet. We then continue think of ways to better the game.	In class, I tried to test out the Mole Mash app today with Sriram with the tablet to see how well it works. At home, I completed my activity log for today and yesterday.
9/20	Together we brainstormed ideas for improving mole Mash. I then started the notebook while Derek continued to perfect the tutorial for the game.	Sriram and I worked on the brainstorming together in class. I also got started on the title page for the Mole Mash game in class. At home, I completed my activity log for today.
9/21	WAS ABSENT	In class, I individually fixed the bug on where the score does not work on the tablet screen if it is horizontal, and I have developed a draft of the front page of the game. I also made a beta version of the game restart screen, and set up a timer that you would have to beat to win the first level in class. I also made the transition from the first level to the next during classtime. At home, I completed my activity log for today.
9/24	Together we tried to get the fail screen to display with two buttons, the return to home and the retry button.	Sriram and I tried to fix and make the buttons on the app work better and make the correct screens load up in class. Also, we added 2 buttons for the options on the failed level screen in class.
9/25	Today we troubleshoot some of the issues hidden in the game. We also switched the screen 1 and 2, then trying to fix the end game, for both winning and losing.Finally we also did our pair share today.	Sriram and I finished switching the data from screens 1 and 2, and we perfected the game reset feature in class. Also, after the switch, we fixed every button feature that is involved with screens 1 or 2 to fit the new fix in class. Also, we got feedback from another team during class.
9/26	Today we attempted the bomb, but came into some hiccups with trying to scale the bomb,	Today, Sriram and I tried to plan out on how to add a timer to the game, and we also tried to

	so we moved on to continuing to troubleshoot.	make a bomb sprite in the game, which was not successful in class.
9/27	Today we collected feedback from the beta gallery walk. I assisted Derek in writing the reflection and together we looked over the feedback that we received.	Today, we collected peer feedback for the gallery walk in class. I wrote the reflection for the gallery walk comments during class also.
9/28	Today we attempted in creating a reset for the game. As we realized that the issues that kept on coming are from the game screen not disabling the timer and reenabling it. We attempted many things today but in the end were successful in fixing the issue.	Today, we tried to input and fix the timers on the game screen, and find a good solution to prevent the game from further bugs by fixing and inspecting the timer mechanism in class. Also, we packaged the apps and gave the source code link for our app on this document in class.
10/1	Today we continued to try to add the timer and fix the reset issue with the code. We then also tried to implement a timer to attempt to make a working timer.	Today, Sriram and I decided to work on the timer, and also try to see how we can get it working in class.
10/2	Today we finished fixing the timer issue, we were able to continue the game. But after we also decided to see if we could better improve the code.	Today, we continued to try to test and finish the timer, and try to let the game end properly in class. We examined the blocks that can be used to make the timer work in class.
10/3	N/A	I remade the play button into an oval, and centered it out of class.
10/4	Today we fixed tried to implement a timer that can be seen while playing. We were stumped so looked to a youtube video to help us out, then we continued to personalize it. At the end of the day, we had managed to accidentally break the real working timer	Today in class, we continued fixing the timer for the level, and we tried to see what we can do for the sound feedback if a mole is hit. Today, we got the in-game timer to work and I also use 2 variables to administrate the counting of the timer in class.
10/5	Today we got the timer working, and to better implement the visible timer into the game, we also made the game ending based on the visible timer. Then we split and I started to work on the Notebook while Derek looked to see if he could improve the game.	Today in class, we finished perfecting the app and we downloaded the .aia and the .apk files of the app and put it onto the document. When we perfected the app, we tried to make the “winning” and “losing” features perfect and without bugs, and I fixed the naming of the starting screen and the header text of the failing screen.
10/9	Today we worked on preparing the game,	Today, I finished up the comments on the game



	and then created the working final. Then we continued to give feedback to games that we saw in the gallery walk.	and I made some final modifications to the app, like to its name in class. Also, we downloaded the app, and I tested it after downloading it in class. I also set up the chart for the gallery walk in class. During the gallery walk, I tested other apps and left comments for them. At home, I looked through the project notebook to see if it was complete made the line spacing and font consistent, and I did the conclusion.
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## Conclusion

### **Sriram Sendhil:**

In the process of this creation me and my partner Derek did a great job in collaborating with one another. Though time to time, I would get confused on what he meant by doing more work, I felt that the work that we did was evenly distributed, with no one dominating. Our code though only making minor changes to the game, did contain a lot of bugs, which as seen in our daily log, spent most time with. In the end both Derek and I came out satisfied with what we made, past our difficulties with the code. In the end, we did find to have an “exploit” that ruined the feel of the game. But overall after asking a few people, I can conclude that with a bit more of bug fixes, we could create a genuine game that people would enjoy.

### **Derek Xu:**

Our process in app development was good, with good team dynamic and interactions. When developing the app, there were many issues and bugs that we ran into, which sometimes took long, and were complicated to fix. Still, all of them eventually were able to get fixed. Also, there were sometimes where I did more work than my partner, and I tried to balance the amount of work done between us. There was one time in which my partner was absent and he was not able to do any work. Later, we discussed and we were able to come up with us working mostly in class. There were more people who mentioned something wrong with our app than those who complemented it. Many liked the features and interface, while more mentioned oddities in the app and features they wished were in there.