My idea

Use this to summarize your idea, plan it using sketches, notes and pseudocode as needed

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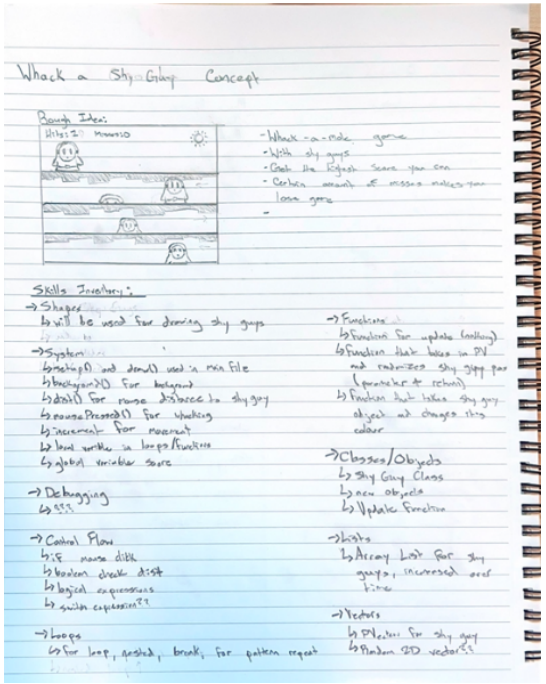
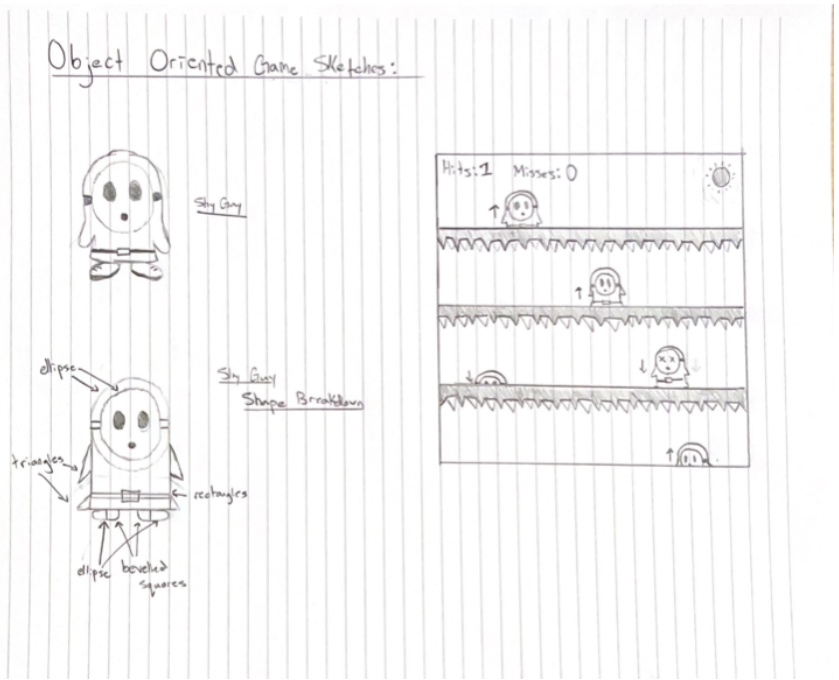
My Idea:

- Whack–A–Mole game
- Using Shy Guys from Super Mario as the moles
- Shy Guys will pop up at different locations across 4 levels and you must hit them to score points
- Goal is to get the highest score you can
- A certain amount of misses makes you lose the game and return to the ready screen

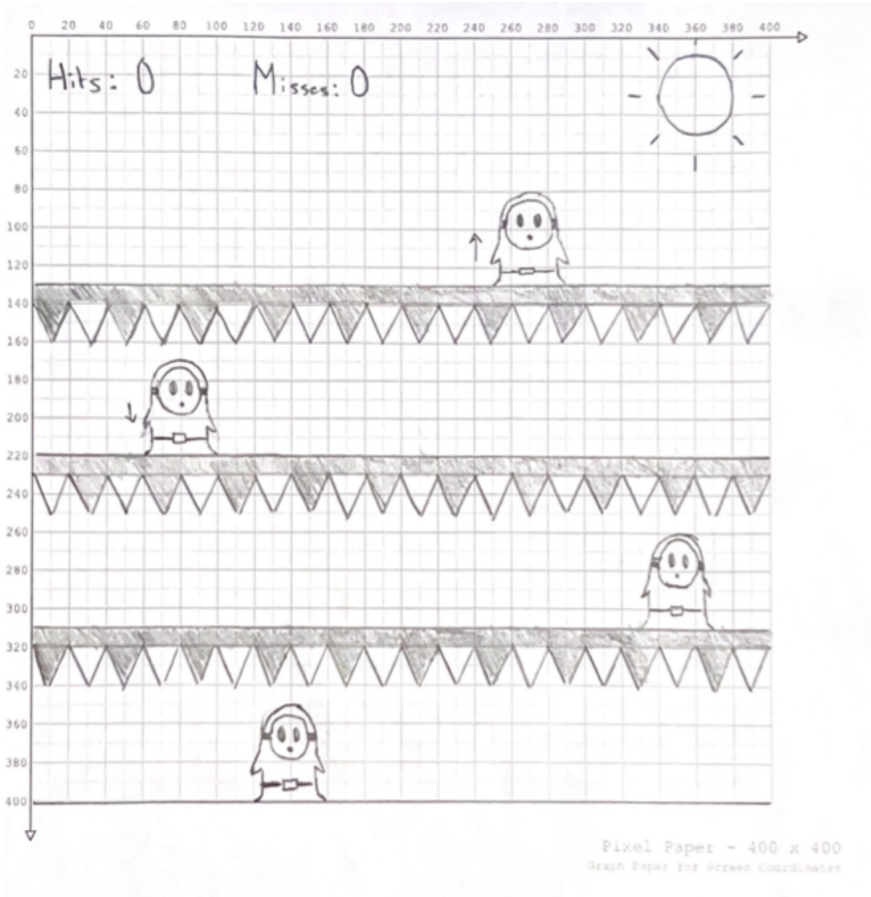
My Rough Documentation:





(sorry about my handwriting, everything written is also typed in this document)

Technical Drawing:



Where will the inventory skills be demonstrated? List every one to be sure you've included them.

- Shapes
  - Skills 1-3 will be demonstrated through drawing the shy guys and the background
- System
  - setup() and draw() will be used in the main file to
  - background() for the background colour which will stay constant
  - dist() to check distance between mouse position to a shy guy
  - mousePressed() for whacking the shy guys
  - increment operators for movement of shy guys up and down
  - local variable will be used in for loops
  - global variable score
- Debugging
  - println() will be used during debugging to see what code is running
- Control Flow
  - if mouse is clicked and(&&) mouse position is in range(boolean expressions) of shy guy position
  - switch expressions will be used in if statements
- Loops
  - a nested for loop with a break will be used for repeating the grass pattern
- Functions
  - function drawing the grass backdrop (no parameters or return type)
  - function that takes in # of misses as a parameter and checks if the minimum is reached for a loss, returns true/false (int argument + return type)
  - function that takes in shy guy object and changes its color (object argument)
- Classes/Objects
  - Shy Guy Class with a constructor function to update
  - New shy guys will be instantiated with 'new'
  - constructor function that takes in PVector as parameter and randomizes shy guy position
- Lists
  - I will use an array for potential game over phrases, one will be randomly selected and displayed when you lose
  - Array List for Shy Guy objects
  - Will be accessed and increased over time
- Vectors
  - PVector class for position and speed for each shy guy object
  - Find distance between mouse position to a shy guy
  - Random 2D vector will be made and used
  - I will experiment with the mult() or add() function to increase the speed of PVector for the shy guys

Milestone 1	Milestone 2	Milestone 3	Milestone 4
What will I deliver? All the shapes and drawing for the game will be complete as well as a prototype of the shy guy class with a constructor function.	*What will I deliver?* Begin to workshop the mousePressed() mechanics. I will hopefully have the movement of the shyguys completed by this point.	*What will I deliver?* This milestone is more organizational than functional. Organizing objects into an ArrayList, creating functions, etc. If possible I will submit my final game at this milestone.	*What will I deliver?* I will deliver the completed game by this milestone (if it hasn't been by milestone 3) complete with all the skills in the skills inventory showcased.
Inventory Skills:	Inventory Skills:	Inventory Skills:	Inventory Skills:
~~#1 shapes~~	#6 dist()	#17 nested loop	#39 PVector for position
~~#2 fill/stroke~~	#7 mousePressed()	#18 break()	#40 find direction/distance between 2 points
~~#3 shape modes~~	#8 increment operators	#21 function with return type	#41 random 2D vector
~~#4 setup(), draw()~~	~~#9 local variable~~	#23 function with a int argument	#43 mult(), add()
~~#5 background()~~	~~#10 global variable~~	#24 function with a object argument	
~~#16 for loop~~	#11 println()	#33 array	
~~#20 function, no parameters, no return type~~	#12 if statement	#34 ArrayList	
~~#28 class~~	#13 boolean expressions	#35 objects in ArrayList	
~~#29 new class~~	#14 logical operators	#36 size()	
~~#30 constructor function with parameters~~	#15 switch statement	~~#38 PVector class~~	
You should deliver approx. 10 skills at this milestone	You should deliver approx. 10 skills at this milestone	**You must deliver 30 inventory skills by this milestone.**	