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# My idea

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

A speed typing game. A word will appear on the screen that the player must type. They will have a very small amount of time to type the word. If they do not succeed in typing the word within the time, the game is over. The timer is reset with every word completed. The goal is to see how long you can play and how many words you can complete before failing. The timer will gradually get shorter to increase difficulty.

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

- 1 - rect for making timer bar
- 2 - colour of bar and colour of letter
- 3 - different mode for creating timer bar
- 4 - setup and draw are necessary
- 5 - change background to black
- 6 - will use for falling letters
- 7 - keyPressed for checking inputs for letters (it's a typing game)
- 8 - add 1 to the cursor position after correctly typing a letter
- 9 - local variable used in setupWord()
- 10 - global variable used for cursor position
- 11 - will use println to make sure arrays are working and loops are counting properly
- 12 - conditional statements to check if the right letter has been typed
- 13 - boolean used for checking if the word has been completed
- 14 - will use for checking upper and lower case
- 15 - will use for the menu / start screen
- 16 - loop used for showing letters and populating the arrayList

17 - will use to make pattern for background  
18 - will use to break game loop and show game over screen  
19 - will answer  
20 - will use several functions in main as well as the Letter class  
21 - char function to return lowercase version of character  
22 - will answer  
23 - char function takes char as an argument  
24 - function in draw that takes the letters objects as an argument. The function will handle all the object functions like showing them and making them fall. This will make draw() much cleaner and easier to read.  
25 - will answer  
26 - will answer  
27 - will answer  
28 - Letter class with constructor  
29 - instantiated the Letter object array list  
30 - Letter class constructor  
31 - will answer  
32 - will answer  
33 - initialize and populate the word array  
34 - initialize and populate the object arrayList  
35 - manage the Letter object with an arrayList  
36 - use size(), get(), and remove() for Letter arrayList  
37 - will answer  
38 - will use for falling letters  
39 - will use for falling letters  
40 - will use for falling letters  
41 - will use for falling letters  
42 - will answer  
43 - will use for falling letters



You should deliver approx. 10 skills at this milestone	You should deliver approx. 10 skills at this milestone	<b>You must deliver 30 inventory skills by this milestone.</b>	
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## PSEUDOCODE ↓

//create array to hold all the possible words - Made it an array instead of an arraylist because I don't plan on removing words. This way the game can go on forever with occasionally repeating words -- skill 33

//create array list to hold "letter objects" --

//string to hold random word

//int to hold cursor posiiton in word -- skill 10

//variable to hold speed of timer

//boolean to check if word has been completed

void setup() -- skill 4

{

  //set frame rate

  //set size of window

  //populate array with words up to 10 letters long. Could do this with an external document. -- skill 33

  //initialize arrayList -- skill 29, skill 34

```

}

void draw() -- skill 4
{
    //on game start, show start screen. use switch statements for menu selections -- skill 15

    //make background black -- skill 5
    //draw pattern on background -- skill 17

    //if word has been completed (use boolean), resetWord() to get a new word -- skill 13

    //show letters, make them fall -- skill 24

    //draw rectangle at top of screen. Each frame, reduce its horizontal size by timer speed. Each frame, make the colour closer to red.
    After a certain number of loops, increase the speed of the timer. -- skill 1, skill 2, skill 3

    //use nested for loop to create a pattern in the background

    //use break to end game loop if timer reaches zero -- skill 18
}

void keyPressed() -- skill 7
{
    //check input and cursor position. if input and position matches the object, then make it fall. Increase cursor position by 1. -- skill 8,
    skill 12, skill 14,

    //use println to ensure comparisons and arrays are working correctly -- skill 11
}

void resetWord() -- skill 20
{

```

```

//temp string to hold word -- skill 9
//empty arrayList of letter objects -- skill 36
//reset timer bar
//reset cursor position
//get new word
//get length of the word using .length()
//for the length of the word, create that many objects / populate arrayList with objects -- skill 16, skill 35
}

```

```

char getLower() -- skill 21, skill 23
{
    //convert char to lowercase, return char
}

```

```

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////

```

```

class Letter
{
    //variable to hold the letter of this object
    //variables to hold position of letter on screen
    //boolean to check if letter has been typed yet
    //int to hold the position of this letter in the word

    Letter(char, x, y, posiiton in word) -- skill 28, skill 30
    {
        //set letter variable = to char
        //set x and y positions
    }
}

```

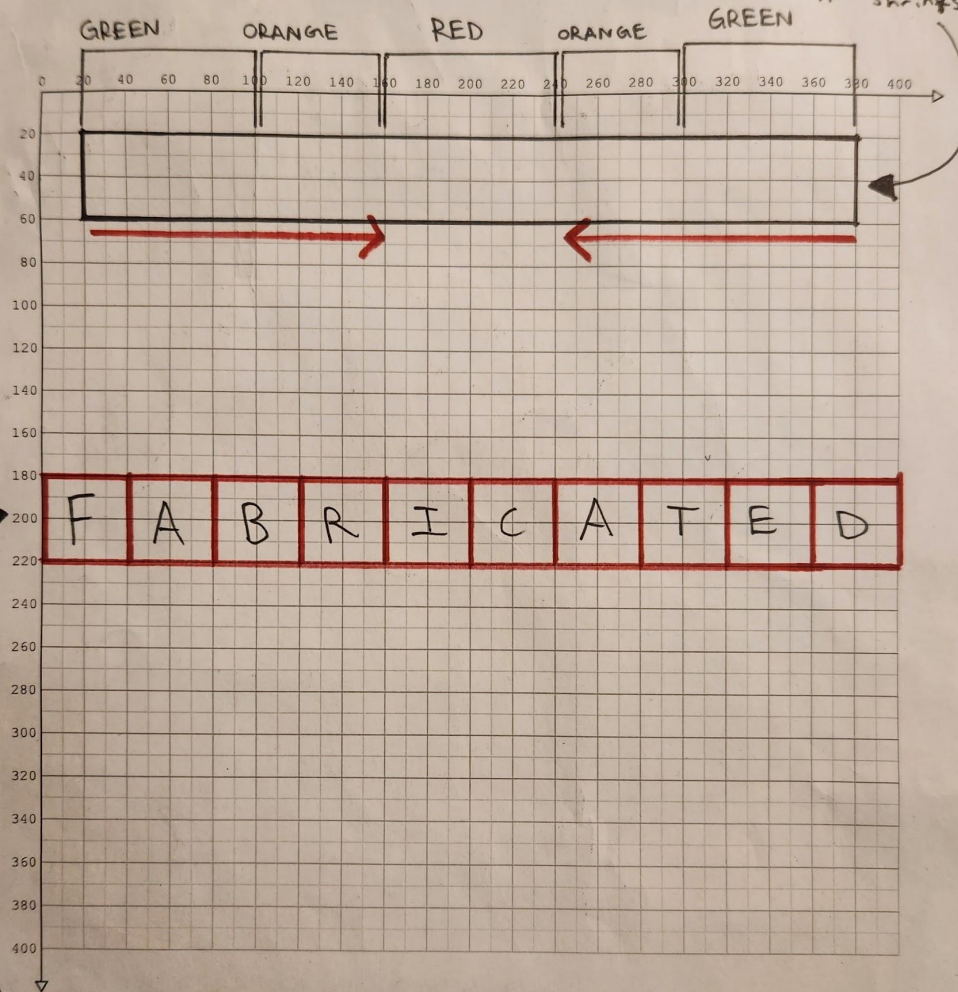
```
void show()
{
  //draw letter at x and y positions using the letter variable and text()
}

void fall()
{
  //use physics to make letter fall off the screen -- skill 6, skills 37 - 43
}
}
```

**NOTES + PIXEL PAPER SKETCH** ↓

# TYPING GAME

Bar acts as timer.  
Bar shrinks,  
indicating how  
much time is  
left. Colour of  
bar changes as  
it shrinks.



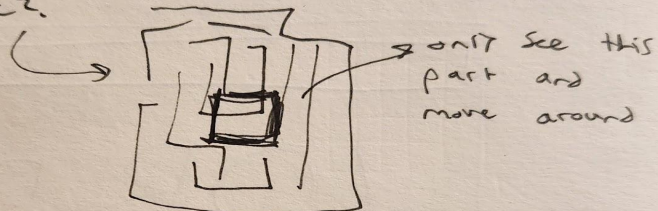
Invisible boxes that will hold objects.  
Each object draws a letter to the  
screen in its designated box. Once  
a letter is typed, it will receive  
a random direction and speed and  
fall off the screen using physics.  
Example word "fabricated"

Pixel Paper - 400 x 400  
Graph Paper for Screen Coordinates

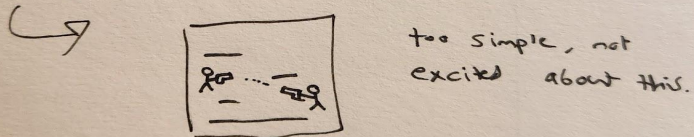


## Object oriented game Ideas

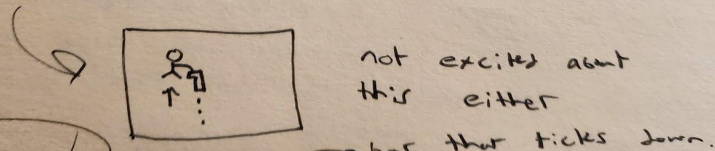
- Small Scope (finish by ~~the~~ milestone 2) - Ideally
- Something Simple that I know how to do
- Maze game?



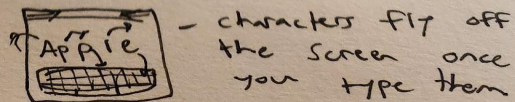
- co-op shooting game?



- platformer where you use your gun to ~~see~~ propel yourself upwards



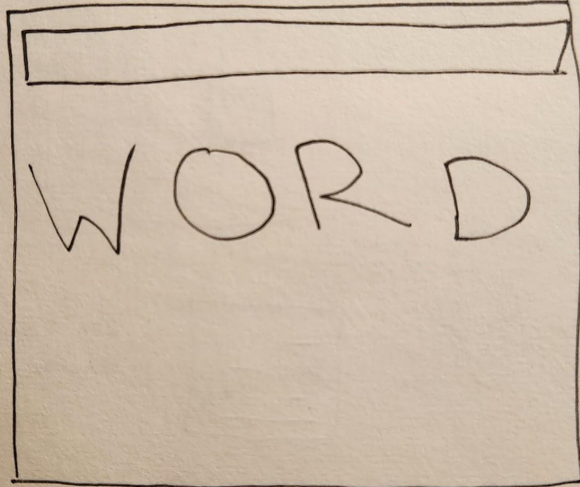
- typing game?



this is simple but also fun

## TYPING GAME

- player has to type words as fast as they can
- there is a bar at the top that ticks down, showing how much time they have to finish the word. Game over if it hits zero. resets when word is finished.



- bar gets red as it gets closer to zero.
- when a ~~word~~<sup>letter</sup> is completed, it turns green and falls off the screen. can use some random numbers and physics to make this look good.
- confetti(?) when word is completed
- letter flashes red if input is wrong