Developer Log

Directions: Each time you make a significant advancement or change to your program, or after working on it for a while, add an entry to this log. This will help you and your teacher keep track of your thinking. Now that you've made a copy, change the title to include your name and share this with your teacher.

One example row is done for you in gray.

Date	Time (roughly)	How long did you work on your project?	What did you accomplish? What resource(s) did you consult (people or websites) and what did you learn from them?	What did you get stuck on (even if you're still stuck on it)?	What do you want to work on / get done next time?
4 Mar	11:00 am	45 mins	I brainstormed the idea to start to work on. I nearly completed work on the Student class.	I have no idea how to start the grades class or where to put the failsafe mechanism for my project (in driver class or in grades class)???	Next time, I want to write a significant amount inside of the driver class and work on the grades class.
5 Mar	1:00 pm	120 mins	Completed the following methods: getNumberOfStudents(), getStudentName2D(), getStudentID(), getClassName(), getGrade(), changeGrade().	I am having a lot of issues with finishing the addNewStudent(), getGPA(), and getAverageGradeForClass() methods because my knowledge on how to loop through 3d arrays is spotty. All of those 3 methods are completely done other than the fact that they have nested loops that do not work.	- I will ask Mr. Ayyappan for help when it comes to the methods in the grades class on Monday. Then, I will fix that. - For now, I will work on the driver class for my program which includes 7 failsafes (one for each method), which exist to make sure no illegal values are put into methods, inadvertently crashing the program. - I will eventually also create a method in the grades class that display's a student's grade book in a matrix.
5 Mar	4:15 pm	90 mins	- I first completed failsafe 2 (the failsafe for the getStudentName2D method).	- The first issue I dealt with was with failsafe 1 (the failsafe for the getStudentID method). The	- I will ask Mr. Ayyappan for help when it comes to the methods in the grades class on Monday.

			This went without a problem. - I then completed failsafes 4 and 5 (after the problems I went through, listed in the next column), which exist for the getGrade() and changeGrade() methods respectively.	issue I was dealing with is that I do not know what the name of the method to input a String into Java is. For ints it's nextInt, but for strings it's not nextString. I need to ask Mr Ayyappan about this. But for now I moved on. - The second issue I dealt with was with failsafes 4 and 5. The issue I had with them was that I was not using while loops to make sure legal values were being put in but I was using if statements. This broke the program because if you put in an illegal input, it wouldn't ask you to put it in again instead of terminating the program.	Then, I will fix that. - I will also ask him for help with failsafe 1. - I will work with failsafes 3, 6, and 7 to start and complete them. - I will eventually also create a method in the grades class that displays a student's grade book in a matrix.
8 Mar	10:10 am	20 mins	- I learned how to loop through 3d arrays from Mr. Ayyappan. This made me be able to fix the getGPA() method. - I also learned that I can cut the getGrade() and changeGrade() methods to 1 line each because instead of just looping through the array to get to the point that I set using the parameters, I can just use the parameters to grab the exact piece of data that I need. This will make my program a lot faster.	None in this session. It was too short to do much.	- As I learned how to loop through 3d arrays, I will also use them to fix the addNewStudent() method, and write the getAverageGradeForClass() method. - I will ask Mr Ayyappan for help with failsafe 1 and the nextString? Method. - I will work with failsafes 3, 6, and 7 to start and complete them. - I will eventually also create a method in the grades class that display's a student's grade book in a matrix. - I will cut down the getGrade() and changeGrade() methods to make them less CPU intensive.
8 Mar	10:30 pm	60 mins	- I cut down the getGrade() and	- After I finished working on the	- I will ask Mr Ayyappan for help

			- changeGrade() methods to make them less CPU intensive. - Renamed getAverageGradeForClass() to getFinalScore() to be shorter for naming conventions. - I edited the getGPA() method to include an internalised failsafe for when a student doesn't have any grades yet so the program doesn't divide by 0. - Wrote a working version of the getFinalScore() method. - Finished failsafes 6 and 7, which are for the methods getGPA() and getFinalScore() respectively. - "Fixed" the 3d array nested loop in the addNewStudent method. - Created the getGradeMatix() method, although it's very crude and incomplete.	3d array nested loop for the addNewStudent() method, I had quite a lot of trouble with adding new students to the allStudent[] and grades[][][] array before it came to mind that might not even be possible. You can't increase the size of 1d arrays to add new values, so who is to say that you can do that for 3d arrays? I may possibly have to make those arrays very large and make their values null before filling them in with students using the addNewStudent() array. As it stands, I have no clue what is happening and I need to ask Mr. Ayyappan for help on this problem. - For the getGradeMatrix() method, I have no idea how to align all of the grades in orderly fashion. I've been trying for a good while.	with failsafe 1 and the nextString? Method. - I will ask Mr Ayyappan about the issue I am having with the addNewStudent() method and whether that is even possible. - When that is done, I will work with failsafe 3 (its counterpart failsafe). - Make the output for the getGradeMatrix() method less messy.
9 Mar	7:00 am	20 mins	- Finished getGradeMatrix()'s failsafe. - Did bug fixes in the driver class.	- Had issues with the ClassID loop in the driver class. - Fixed this by fixing the while loop and if statement parameters.	- I will ask Mr Ayyappan for help with failsafe 1 and the nextString? Method. - I will ask Mr Ayyappan about the issue I am having with the addNewStudent() method and whether that is even possible. - When that is done, I will work with failsafe 3 (its counterpart failsafe). - Make the output for the getGradeMatrix() method less messy.

					- Possibly add an option to change more grades when you've added the first one in the changeGrade() method. - Add an option to be able to do perform other methods before closing the program.
10 Mar	10:00 pm	182 mins	- Asked Mr Ayyappan about failsafe 1. Fixed it. - Now I know that addNewStudent() is an impossible method because you can't increase the size of an array, so it is taken out of the program and Failsafe 3 no longer exists (meaning the rest of the failsafes have been pushed forward by an integer. - To finish the getGradeMatrix() method and it not have the alignment issues, I had to create the getGradeMatrixAssistant() method, which returns the students' grade always 3 digits long. This helped with alignment issues.	- Aligning the Matrix so they are all shown on the same row is very difficult because the least time-consuming method, as well as the least processor and RAM intensive method, is just to brute force it. This is the issue I am dealing with: ``` : 1 2 3 4 5 6 7 8 Mathematics: 0 0 0 0 0 0 0 0 English: 0 0 0 0 0 0 0 Science: 0 0 0 0 0 0 0 Social Studies: 0 0 0 0 0 0 0 Language: 0 0 0 0 0 0 0 Computer Science: 0 0 0 0 0 0 0 0 Art: 0 0 0 0 0 0 0 BUILD SUCCESSFUL (total time: 13 seconds) ``` - Adding an option to be able to do perform other methods before closing the program is not working. The continueProgram boolean isn't working as it's meant to.	- Fix the option to be able to perform other methods before closing the program.
12 Mar	9:30 am		- Fixed the option to perform other methods before closing the program - Fixed the getGPA() method by fixing the parameters for the nested for loop. - Fixed the getStudentID() method by making sure the inputted string was being compared to the string of an	- Had a lot of issues with the getGPA() method and how it had issues with crashing every time I used it. - Had issues with the getStudentID() method and how it wouldn't accept return studentID when studentNames are inputted.	N/A! Program is perfect!

			object instead of just an object - Did about 45 minutes of smaller bug fixes.		