Unit 4, Activity 2: Design and Development

Problem Definition:

The application I plan to make is a lesson on the grade 9 concept of a straight line. I will teach how to calculate slope, how to find the y-intercept given the equation of the line, and I will explain what the equation of a line and how to derive it. I will try to make this program interactive and teach linear equations. The end users will be grade 9 academic math students.

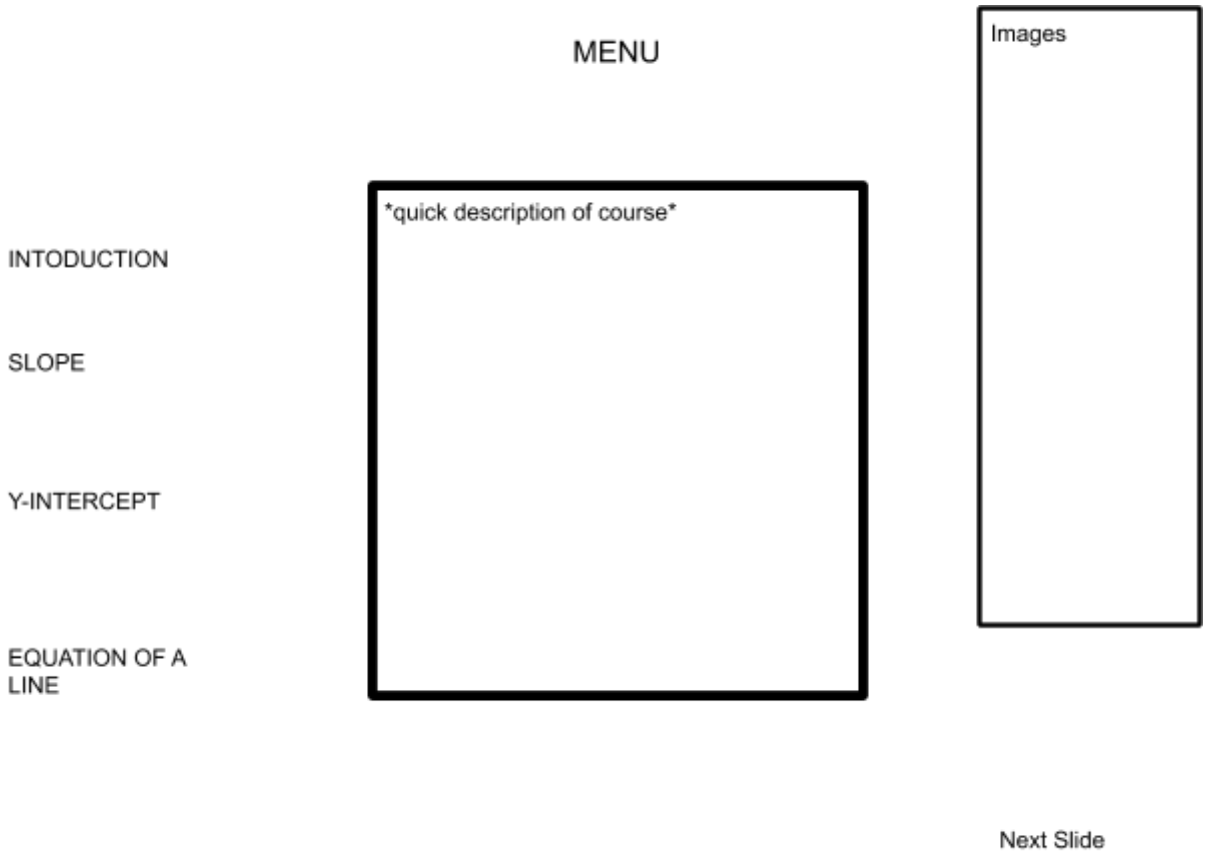
Problem Analysis:

The main problem I think I will face while creating this program is making it interactive. My client stated they would like for this program to be interactive, I am not entirely sure how I will implement this in some aspects of my lessons but I will try. I plan to add many sample questions and scenarios. I am even planning to have scenarios that the students can choose. I also need to keep the program appropriate for the user's level. They only know upto grade 8 math so I need to use concepts that they are familiar with. There are no concepts that I don't know but I need to learn how to teach them.

End User Requirements/Recommendations:

My client wants the theme of the project to be red and black which I can very easily fulfill. The clients wants it to be interactive and focus more on experiential learning rather than theoretical learning. The end user needs this course to be very dense and jammed packed with information in a manner that is memorable and will help them in the highschool career. The interview with my client took place on August 7th, 2019. His name is Nain Abdi, and he represents Sir Wilfrid Laurier C.I.

Development Plan:



I envision most of my GUI's to follow that format loosely

I will break my project down into subtasks such as: Slope, y-intercept, equation of a line, practice questions, quiz, examples, graphs and written descriptions.

PseudoCode for equation of a line

start

//Formula == y = mx + b

x = 3
m = 4
b = 7

Y = (3)(4) + 7
y = 19

finish