My idea

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

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| I’m planning to make a racing game with 5 other CPU cars racing against the player. Whoever finishes 1st place after the race is over wins. The racers who finished 2nd to 6th will lose the race. There are laps in this game, depending on how many laps you set the race to be inside the options menu. You can set a minimum of 1 lap and a maximum of 5 laps. There will be a main menu that has the buttons for playing the actual game, the options menu, and the credits menu. I’m also planning to a different game over screen where you win the race or lose the race depending on what your final race position is. There will be an elapsed timer when the race starts. |

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

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| The inventory skills will be demonstrated inside my Processing sketch where I will comment which inventory that part of code is for (e.g. I’ll comment “// 37. When should you use PVector instead of float variables?” at the very first line of code inside the main program). I’ll answer questions inside my main program at the very top, and each of the inventory skills I have to show via my code, I will write a comment which inventory skill I’m using for this particular code. For instance, “// 15. Switch statement && switch {the amount of laps from 1-5}”. | | | |
| **Milestone 1** | **Milestone 2** | **Milestone 3** | **Milestone 4** |
| What will I deliver?  I’m planning to deliver the 15 skill inventories in the next 2 weeks, and then in the 3rd week, I will only deliver 10 of them. In the 4th week, I’ll deliver only 4 skill inventories. That will be a total of 45 skill inventories demonstrated. | I’m ahead of schedule with this milestone so I will complete inventory skills 31-36 | You are strongly encouraged to deliver your finished game at Milestone 3.  I completed all of Milestone 3 during Milestone 2 | I completed Milestone 4 during Milestone 2 as well. So for now, I’m planning to fix any bugs or add more comments in my code that are still missing. I might even create a new branch to do some extra work to make my game look better. After completing Milestone 3, I decided to add inventory skills 45, 47 & 48 on this list to complete at this milestone. |
| Which inventory skills will this demonstrate? List them. |  |  |  |
| 1. line, ellipse, rect, triangle, quad, arc, curve 2. fill, stroke, strokeWeight, noFill, noStroke, color 3. Modes: CORNER, CORNERS, CENTER, RADIUS  4. setup(), draw() 5. background(), random(), noise() 6. constrain(), dist() 7. keyPressed(), keyReleased(), keyPressed, mousePressed(), mousePressed 8. increment operators: ++, +=, --, -=, \*=, /= 9. declare and use a local variable 10. declare and use a global variable  11. println(), stop()  12. conditional statements: if, else if, else 13. Boolean expressions: ==, >=, <=, >, <, != 14. Logical operators: &&, || 15. switch statement  16. for loop, while loop 17. A nested loop 18. break() 19. What’s the difference between a for loop and a while loop?  20. Declare & call a function with no parameters and no return type 21. Declare & call a function with a return type 22. What’s the difference between parameters and arguments? 23. Pass by copy (value): declare and use a function that takes int, float, char, etc as an argument 24. Pass by reference (objects): declare and use a function that takes an object as an argument  25. What’s the difference between a class and an object?  26. What is a constructor function? What does it do and when? 27. Why should each class have its own tab in Processing? 28. Write a class with a constructor function 29. Use the keyword new to instantiate an object 30. Write a constructor function with parameters | 31. What’s the difference between an array and an ArrayList? 32. Why would you want to go through a list backwards, decrementing the index? 33. Initialize and populate an array 34. Initialize and populate an ArrayList 35. Manage a set of objects with an array or ArrayList 36. Use an ArrayList method: size(), get(), remove(), contains() | 37. When should you use PVector instead of float variables?  38. Use the PVector class 39. Do some basic physics: use position, velocity, and acceleration (due to gravity) vectors  44. Use a timer  46. Make a button or toggle switch with a roll-over highlight (color or size change)  49. Use collision detection between objects | 40. Find the direction and distance between two points 41. Create a random 2D vector 42. What is a normalized vector, why is it useful? 43. Using the Processing documentation look up a method in the PVector class that’s new to you and use it in your code.  45. Switch between “game states” (eg grounded/jumping) using conditional statements (added after completing Milestone 3)  47. Create a drag & drop object (added after completing Milestone 3)  48. Do animation with images (spritesheet or individual files) (added after completing Milestone 3) |
| 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.** |  |