Name:

FIRIA LABS FINAL PROJECT PLANNING GUIDE

Final Project:	
For the final project, you will apply the concepts learned from this Mission Pack to create a new program that contains the listed requirements. You will be graded based on your class time production, final program, and presentation. The requirements are listed ➔ Optionally, you can also include a GUI.	☐ Input from the user (button press, sensor data, etc.) ☐ Output to the screen (text, images, shapes, etc.) ☐ Use of sound ☐ Global variable ☐ Function with a parameter (should also have a local variable) ☐ If .. else statement (selection) ☐ While or For loop (iteration) ☐ List
Final Project Step 1: Select three of your favorite programs that have code you may use in the final project. Review the code in each one.	
Mission selected:	**Code/concept reviewed**:
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Final Project Step 2: Plan your project	
Select your project and define a clear goal. It needs to be reasonable for the time allowed and achievable. Don't try to be overly ambitious.	Describe your final project:
Write the steps to your code. What happens first, then second, etc. (pseudocode or flowchart) Add steps as needed.	Programming steps: 1. 2. 3. 4. 5. 6.
Final Project Step 3: Map out your program. What functions, variables, lists and buttons will you use in the project?	
Use the charts below to help you organize the parts of your code and ensure you meet the requirements. You don't have to fill in every chart, or all the rows of every chart. Use what you need to organize your code elements.	

Global Variable	Used for:

If statement (selection)	What it will do:

Type of loop	What it will do

Function name	What it will do

What lists, graphics, sounds or any other programming elements will you use in the project? Will you use any sensor data? *add more lines if needed.*

Final Project Step 4: Write your code

Use the sandbox  when you write the code. Write just a few lines at a time and test often! Follow your plan and get help as needed. Remember – don't be too ambitious! Use the iterative process. Get one thing working, and then add to the program, and get that working. Then add some more. Use your code from previous projects as your guide.

Each day that you work on your final project, complete a daily reflection.

Your final project must include the requirements and run correctly, free of all bugs. It should be organized, with sections of code, functions, and comments. Your code should be easily readable.

Final Project Step 5: Peer feedback. Get feedback from at least two people. Have each person fill out a form.

Peer Review #1 Name:	
What do you like about the program – be specific!	
Give at least one suggestion. Begin with "what if" or "maybe you could"	

Peer Review #2 Name:	
What do you like about the program – be specific!	
Give at least one suggestion. Begin with “what if” or “maybe you could”	

Review the comments. Then take time to improve or add to your project.

Final Project Presentation

Create a slideshow about your final project. It should include the following slides. Include code snippets where possible.

- [ ] Project purpose and goal
- [ ] Project planning (pseudocode or flowchart, other planning charts)
- [ ] A slide on the program’s input (button press, sensor data, etc.)
- [ ] A slide on the program’s output (images, sound, etc.)
- [ ] A slide on the sound used
- [ ] A slide on global variables used
- [ ] A slide about one function that has a parameter and local variable
- [ ] A slide about one if statement (or selection)
- [ ] A slide about one loop (while or for, other than the main while True: loop)
- [ ] A slide about a list used in the program
- [ ] A slide about what you learned from working on the project
    - [ ] Biggest accomplishments
    - [ ] Difficulties faced
    - [ ] Python or programming concepts applied
- [ ] A demonstration of your program (live demo, video, screenshots, etc.)