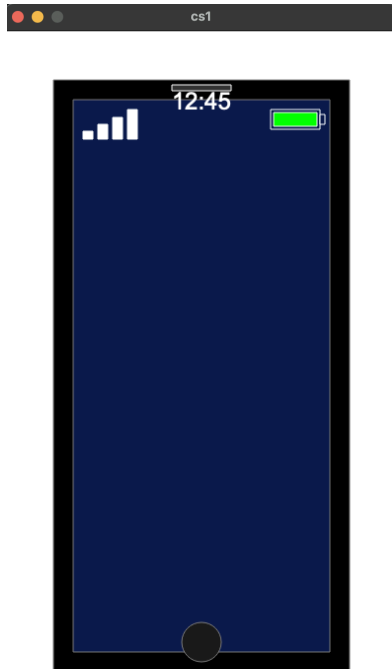## OBSERVATIONS

1. I prompted the AI to "Write me a Python program that draws a picture of a smartphone, how it looks like when on when viewed from the outside, using the cs1lib.py graphics library from http://projectpython.net ."

2. Its response was that it assured me that the code it's going to generate will do the following: "The screen area will be filled to represent it being powered on, and we'll add some basic features like the body, screen, speaker, front camera, and a home button."

3. The copied code from the AI did not run at all when pasted and ran on PyCharm.

4. The console had some error messages, most of them being "something was not defined."

5. AI seemed to have used functions that did not actually exist from cs1lib; for example, it used *draw_rect* instead of *draw_rectangle* to draw a rectangle. Other flaws include *fill_circle* instead of simply *draw_circle*

6. Moreover, on top of incorrectly importing a function, the AI imported functions that did not even exist in cs1lib. For example, *set_line_width* was intended to expand the width of the lines drawn, but the function did not exist.

7. For function usage, it used something like this: *set_font("Arial", 24)* to mean that the *set_font* function takes 2 arguments as parameters when actually it is supposed to take just one, which is the font type, for this case "*Arial*". The 24 was supposed to be used as *set_font_size* to expand the size of the text.

8. I also noticed that he used stuff probably out of what we've been taught so far, for instance, for loops for iteration.

9. I tried to comment out the non-existent functions, rename the incorrect functions (but exist), and fix the correct usage of the existing functions, and the image this time was at least displayed.

The output

10. I prompted the AI again, showing the errors in its code and how to better them like I did manually on PyCharm, and told it to use the correct code to build on and now build a"with the fixes here is the result." Now building on this, better the inside view of the phone; let's say the phone app is open and someone is about to dial in a number and call… Make a picture of this phone view."

11. It went on and generated an even longer function (from 87 to 193 lines of code), and I noticed that it defined and used lots of functions. But the code, again, did not run.

12. The console pointed out some errors, including some areas that I had already told him to fix, but it still made the same mistake. For instance, it repeated the *set_line_width and fill_circle* functions when I had told it they don't exist, and to use *draw_circle* instead of the *fill_circle*. On top of that, it added new functions that did not exist such as the *draw_arc*.

13. Though the functions did not exist, the AI's ability to build on an idea of plugging in parameters in the function as if it exist is commendable.

14. I commented out these error-causing lines, and re-ran it, and this was the result. A phone in the phone app. See image below.