Setup

Read from SD (Should also be a hardware interrupt for updating later on?)

Connect to Wifi (read SD for the name and passcode of wifi?)

Setup up alarm(s) from data read from SD (Interrupt right?)

Connect to web server

Read web server to obtain current weather (and perhaps also time?)

Tasks

1. Read data from web server (Weather. Could also use to obtain time periodically, or is it not needed?) (weather mutex\*, time mutex\*\*)
2. Update weather display (not very often unless we wanna make it into an animation? Could be combined with web server read if they are done at the same intervals.) (weather mutex\*)
3. Send Time to PIC through SPI (how often would the PIC drift? Most likely will be updated much more often than “needed”) (time mutex\*\*)
4. Uhhhhhhhhhhh im sure there is more I probably just bundled tasks together/im forgetting some functions

Alarm.

Use music from SD card, or option for only visuals if we are doing that (setup)

Wait for user to push button to stfu (hardware interrupt?)

Do we want to implement visuals in the LCD screen for the alarm? If this is for Alex we most ` likely will need to.

Ical file library

I assume the library for the ical file will ultimately just return a pointer for a struct that has all the data read in it (like the FILE library in C)? Or am I tripping, and we don’t need to go that far/there is a more efficient way to do it?

\*Mutexes might not even be needed its just for the memes.

\*\*This is if we are reading time from the web server, if we trust ESP32 inner clock to stay in course this wont be needed (though jk lmao over long periods of time it probably will be needed?)