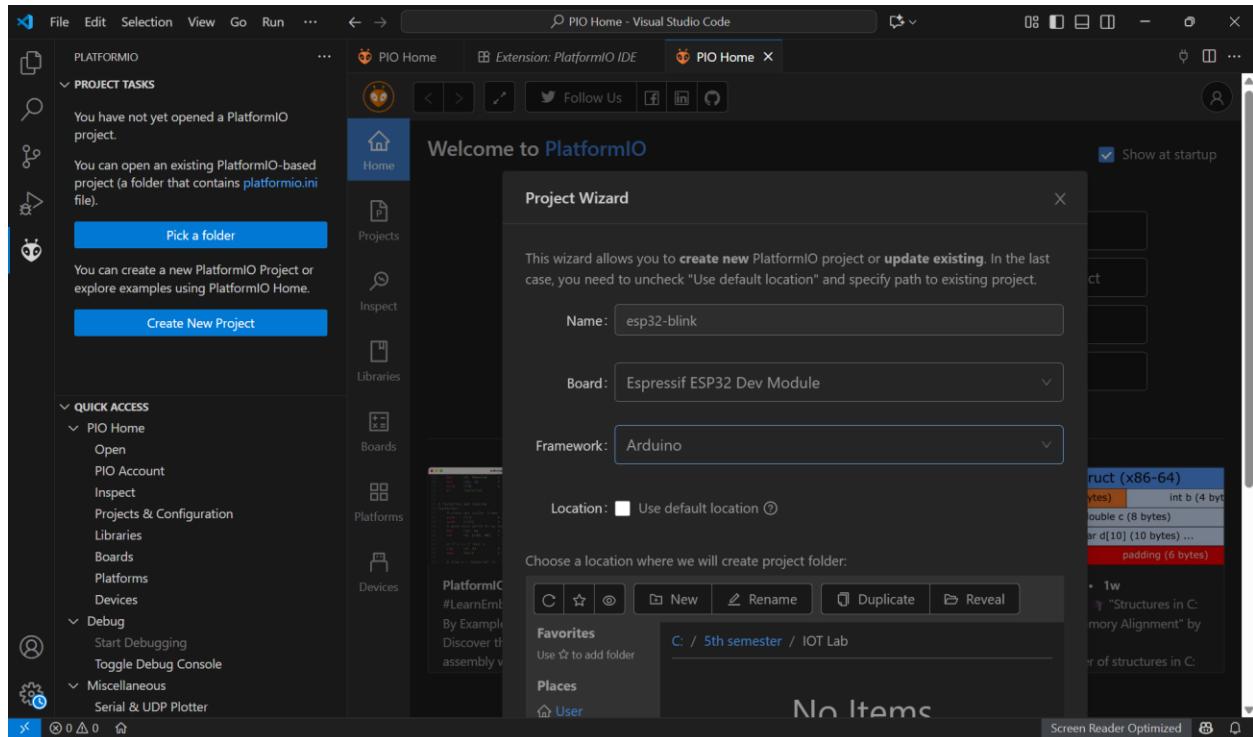
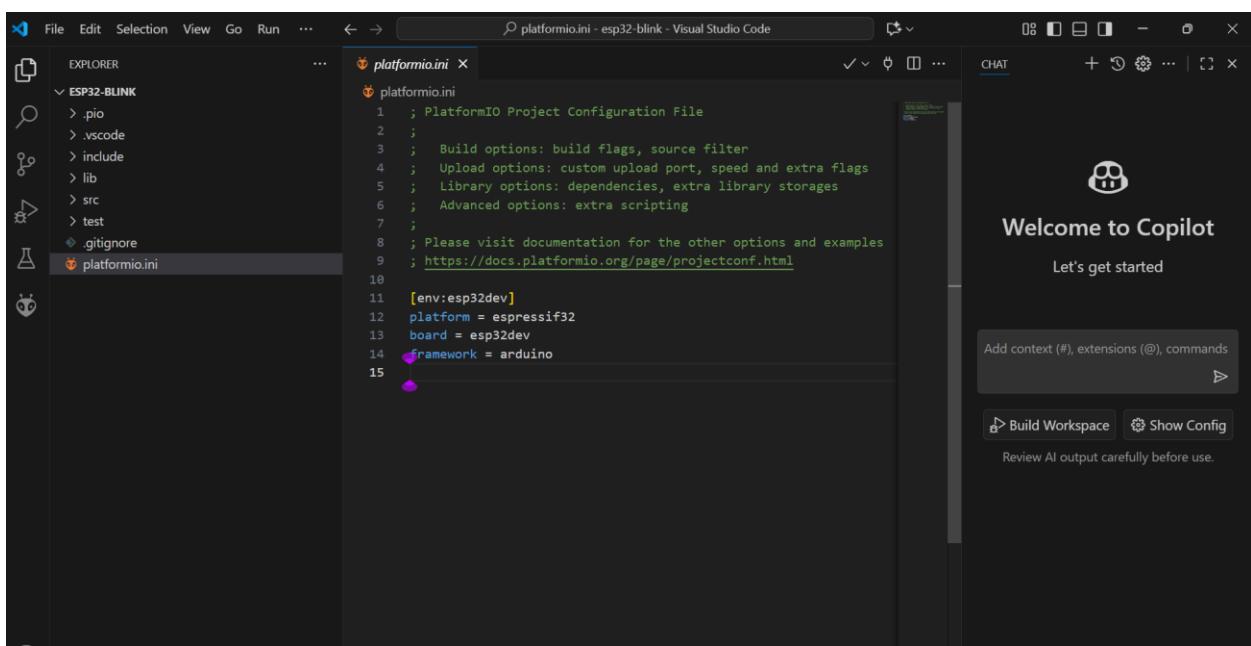
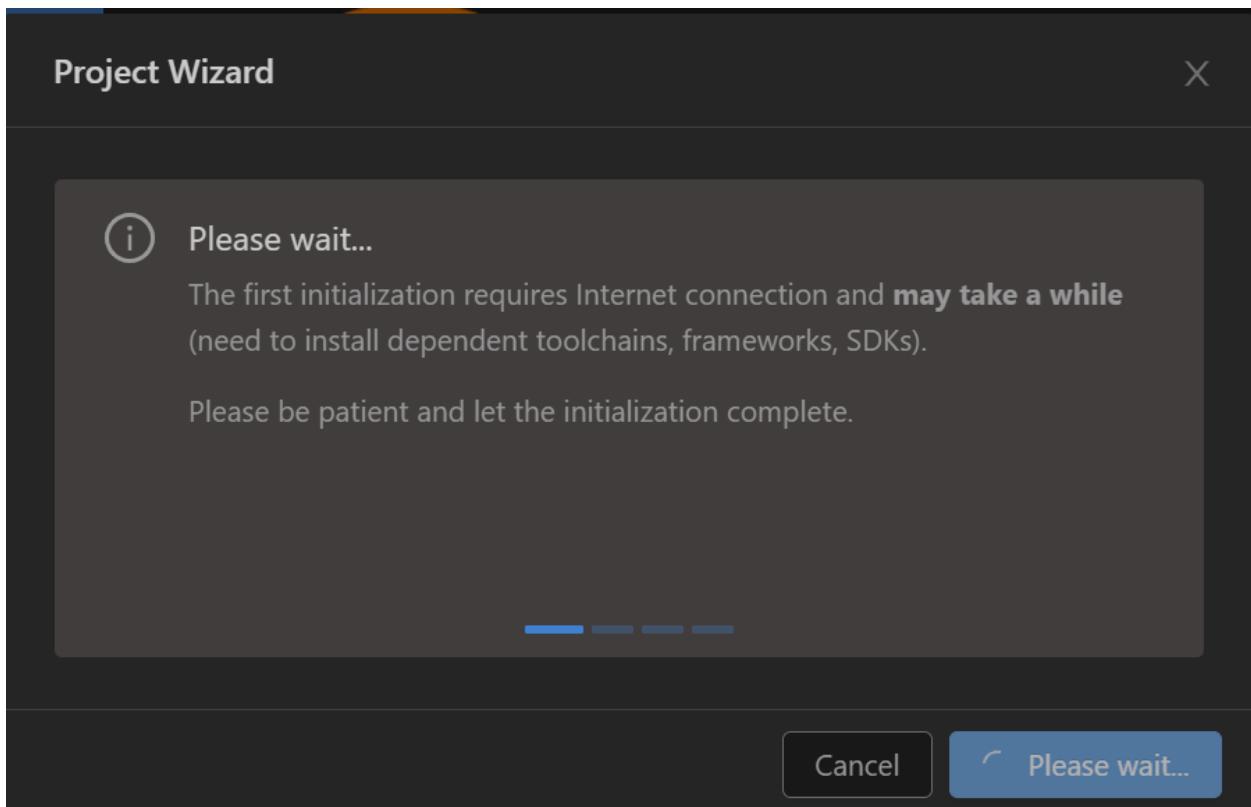


**NAME: LAIBA FATIMA**

**REGISTRATION# 23-NTU-CS-1257**

**BSAI-5TH**



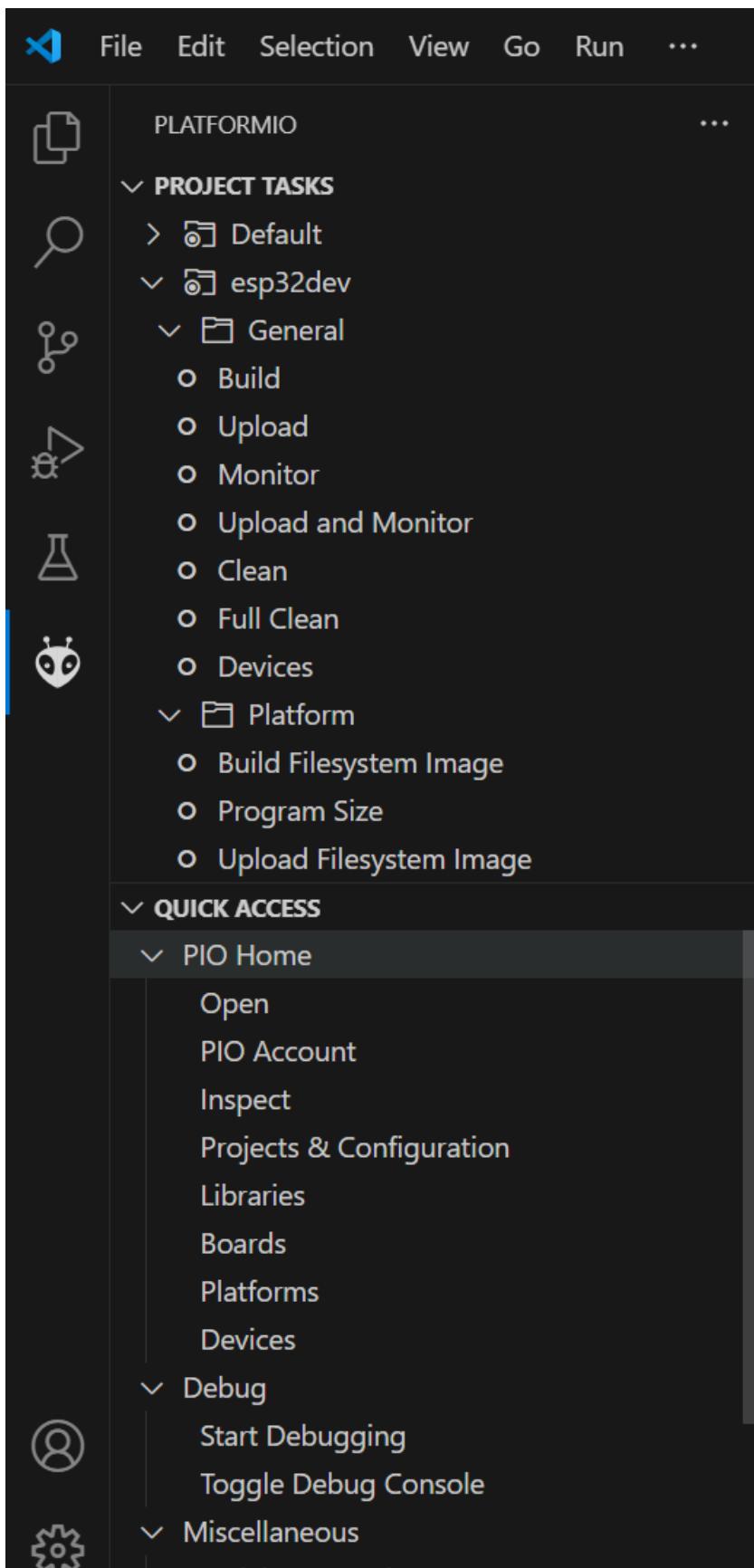


The screenshot shows the Visual Studio Code interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Search Bar:** main.cpp - esp32-blink - Visual Studio Code
- Sidebar:** Shows the "PROJECT TASKS" section with "Upload" selected, and the "QUICK ACCESS" section.
- Editor:** The main editor window displays the file "main.cpp" with the following code:

```
src > main.cpp > loop()
1 #include <Arduino.h>
2 // Prefer LED_BUILTIN if your board defines it.
3 // If your board doesn't, uncomment the correct pin below.
4 // Common pins:
5 // - ESP32-DevKitC/V1: 2
6 // - Some ESP32-S2/S3: 13 or 48 (varies)
7 // - ESP32-C3 DevKitM-1: 8 (often active-low)
8 //
9 // #define LED_PIN 2
10 #ifndef LED_BUILTIN
11 #define LED_BUILTIN 2 // fallback; adjust if your board uses another
12 #endif
13 // Set this to true if your LED is active-low (many ESP32-C3 boards)
14 const bool ACTIVE_LOW = false;
15 void setup() {
16     pinMode(LED_BUILTIN, OUTPUT);
17     // Start with LED off (respect active level)
18     digitalWrite(LED_BUILTIN, ACTIVE_LOW ? HIGH : LOW);
19 }
20 void loop() {
21     // toggle
22     static bool on = false;
23     on = !on;
24     digitalWrite(LED_BUILTIN, (on ^ ACTIVE_LOW) ? HIGH : LOW);
25     delay(500); // 0.5s on, 0.5s off
26 }
```

- Right Panel:** "CHAT" tab is open, showing a "Welcome to Copilot" message and a "Let's get started" button. It also includes a "Add context (#), extensions (@), commands" input field and buttons for "Build Workspace" and "Show Config". A note at the bottom says "Review AI output carefully before use."



The screenshot shows a Visual Studio Code (VS Code) interface for an ESP32 project named "ESP32-BLINK".

**Explorer View:** Shows the project structure with files like main.cpp, .pio, .vscode, include, lib, and src.

**Code Editor:** Displays the content of main.cpp, which includes code for setting up an LED pin and writing to it.

```
#include <Arduino.h>
// Prefer LED_BUILTIN if your board defines it.
// If your board doesn't, uncomment the correct pin below.
// Common pins:
// - ESP32-DevKitC/V1: 2
// - Some ESP32-S2/S3: 13 or 48 (varies)
// - ESP32-C3 DevKitM-1: 8 (often active-low)
//
#define LED_PIN 2
#ifndef LED_BUILTIN
#define LED_BUILTIN 2 // fallback; adjust if your board uses another pin
#endif
// Set this to true if your LED is active-low (many ESP32-C3 boards are)
const bool ACTIVE_LOW = false;
void setup() {
    pinMode(LED_BUILTIN, OUTPUT);
    // Start with LED off (respect active level)
    digitalWrite(LED_BUILTIN, ACTIVE_LOW ? HIGH : LOW);
```

**Terminal View:** Shows the output of the build and flash process.

```
Checking size .pio\build\esp32dev\firmware.elf
Advanced Memory Usage is available via "PlatformIO Home > Project Inspect"
RAM: [=          ] 6.4% (used 21112 bytes from 327680 bytes)
Flash: [==        ] 18.3% (used 239861 bytes from 1310720 bytes)
Building .pio\build\esp32dev\firmware.bin
esptool.py v4.9.0
Creating esp32 image...
Merged 2 ELF sections
Successfully created esp32 image.
=====
[SUCCESS] Took 22.65 seconds =====
Terminal will be reused by tasks, press any key to close it.
```