A. Software Installation
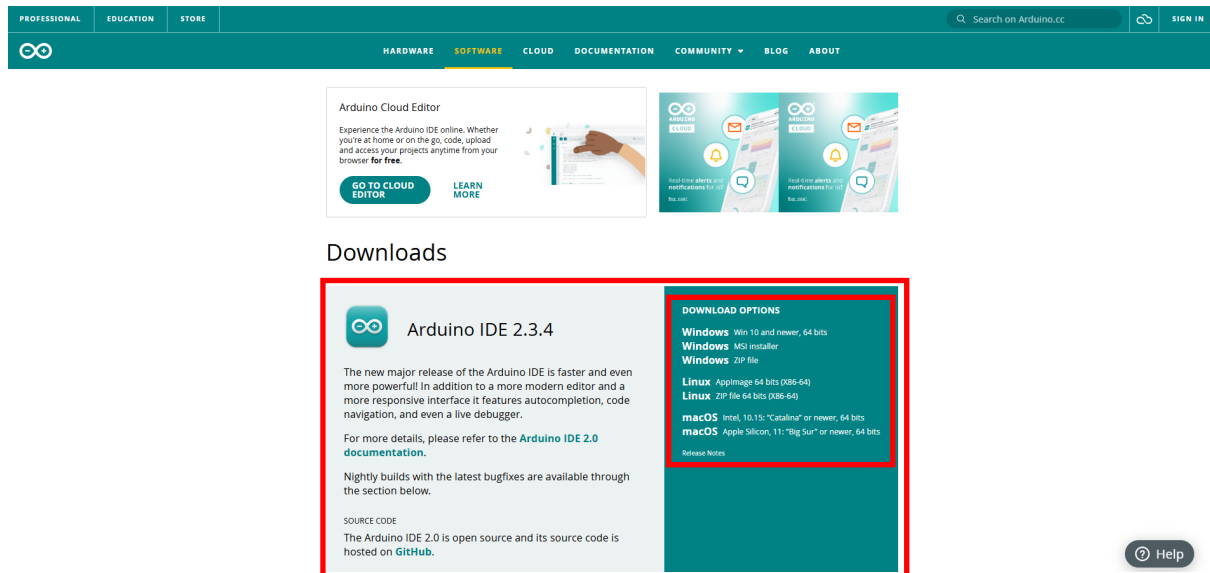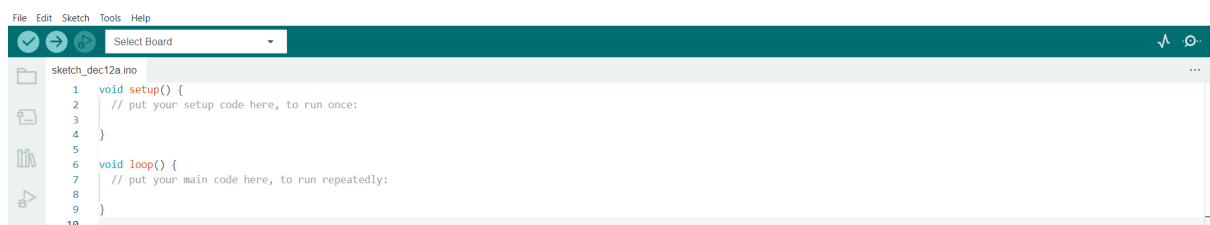
A.1. Arduino IDE

1. Browse to the software download page on the official website of Arduino at https://www.arduino.cc/en/software.
2. Go to the Arduino IDE 2.3.4 section and select the required download option based on the operating system of your laptop to download the installer.


3. Run the installer and follow the instructions to install Arduino IDE.
4. After installation has completed, start Arduino IDE to perform some configuration.

5. From the main menu, go to "File > Preferences".
6. Configure "Additional boards manager URLSs" as "https://dl.espressif.com/dl/package_esp32_index.json" without the double quotes as shown in the figure on pp. 3.
7. Click "OK" to close the "Preferences" dialog box.
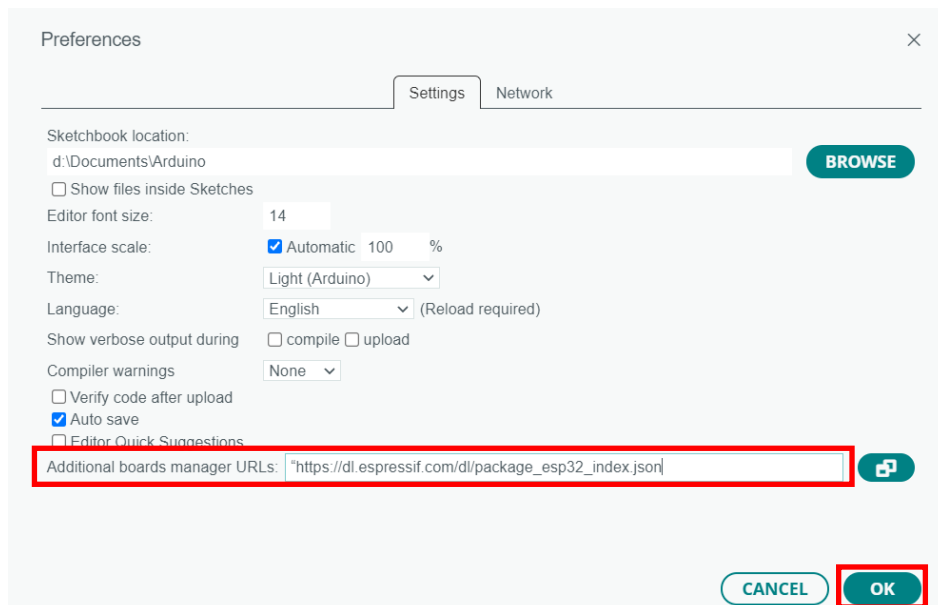
8. From the main menu, go to "Tools > Board > Boards Manager" or click on the "Boards Manager" button on the left navigation bar.
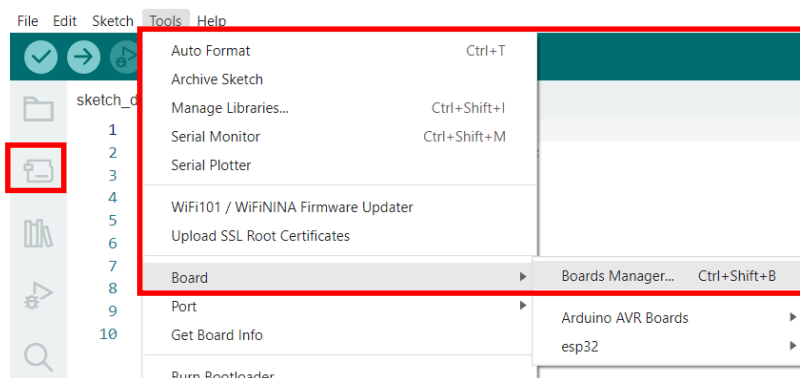
9. In the "Boards Manager" dialog box, search for "esp32", select "3.1.1" and then click on the "Install" button.

10. From the main menu, go to "Tools > Manage Libraries" or click on the "Library Manager" button on the left navigation bar.

11. In the "Library Manager" dialog box, search for "json" and look for "Arduino_JSON". Select "0.2.0" and then click on the "Install" button.

12. You can now exit Arduino IDE.