Preparing ESP32 in Arduino IDE

Step 1: First you need to download and install **Arduino IDE** software

Step 2: After installing, open IDE and go to **Files -> Preferences** and open preference window and see the **"Additional Boards Manager URL's"**
Step 3: This box may be empty or contain some other URL if you have used it previously for ESP8266. You just have to paste the below URL into this box if the box contains already another URL, then paste it by separating another URL using comma(,).

https://dl.espressif.com/dl/package_esp32_index.json

Step 4: After pasting the given URL my window looks like this as I already used ESP82666, Now press OK and the window will disappear.
Step 5: Now go to **Tools-> Board-> Board Manager** and search for ESP32 and press **install**, it will take some time to install, make sure that you have an internet connection
After this, close the window of board manager and your Arduino IDE is ready to program ESP32.

Programming ESP32 With Arduino IDE

Step 1: First of all, connect your ESP32 to your computer using a micro-USB cable, make sure that Red LED goes high after connecting it with the PC.

Step 2: Now you have to select your board; so go to **Tools-> Boards** and select **"ESP32 Dev Module".**

Step 3: Now open device manager and check to which com port ESP32 is connected.
Step 4: Open Arduino IDE again and paste the given LED blink program:

```
int LED_BUILTIN = 2;
void setup() {
pinMode (LED_BUILTIN, OUTPUT);
}
void loop() {
digitalWrite(LED_BUILTIN, HIGH);
delay(1000);
digitalWrite(LED_BUILTIN, LOW);
delay(1000);
}
```

In ESP32, the internal LED is connected to pin no. 2; so I define that pin of ESP as high or low. This code makes LED blink every 1 second, you can change the interval by changing the delay.

Step 5: To upload the code in ESP32, click on the **upload** button.

After uploading the code, you will see a window and finds **"Done uploading"** if everything you did earlier was correct.
Now see your ESP module and you will find that a LED of your module is blinking at an interval of 1 second. You can also connect LED externally with ESP32 in that case you have to just change that PIN to which you are connecting the LED.