- Circuit Connections:
- The input device for this project is a 4×4 keypad, which has 8 terminals. Each terminal is connected to a separate digital pin on the Arduino board, enabling it to detect key presses. When a key is pressed, it activates a specific function, sending the corresponding input signal to the Arduino.
- A breadboard is used to manage all external connections to the Arduino board. To establish power distribution, the 5V and GND pins of the Arduino are connected to the breadboard's power and ground rails, respectively.
- For output components, two LEDs (one red and one green) and a
 Piezo buzzer are used. The cathodes of both LEDs are connected
 to the ground rail via resistors, while their anodes are wired to digital
 pins D10 and D11 on the Arduino.
- The Piezo buzzer is also connected to the Arduino, with its positive terminal linked to digital pin D12 and its negative terminal connected to the ground rail on the breadboard.