**1-10: Basic Arduino Projects**

1. **Blinking LED:** The classic "Hello World" for Arduino.
2. **Push Button LED:** Control an LED with a push button.
3. **Potentiometer LED:** Adjust LED brightness using a potentiometer.
4. **Temperature Sensor:** Use a temperature sensor to display the temperature.
5. **Ultrasonic Distance Sensor:** Measure distance using an ultrasonic sensor.
6. **Sound Sensor:** Detect sound levels and trigger an action.
7. **Servo Motor Control:** Move a servo motor using Arduino.
8. **DC Motor Control:** Control the speed and direction of a DC motor.
9. **RGB LED Control:** Mix colors with an RGB LED.
10. **Light Dependent Resistor (LDR):** Control an LED based on light levels.

**11-20: Sensor Integration Projects**

1. **Gas Sensor Alarm:** Trigger an alarm when gas levels are high.
2. **IR Remote Control:** Use an IR remote to control devices.
3. **RFID Door Lock:** Unlock a door with an RFID card.
4. **Heart Rate Monitor:** Interface a pulse sensor for heart rate monitoring.
5. **Soil Moisture Sensor:** Monitor soil moisture for plants.
6. **Flame Detector:** Detect flames using a flame sensor.
7. **Water Level Indicator:** Display water levels using sensors.
8. **MPU6050 Gyroscope and Accelerometer:** Track motion and orientation.
9. **GPS Tracker:** Track and display GPS coordinates.
10. **Humidity and Temperature Logger:** Log and display humidity and temperature data.

**21-30: Communication Projects**

1. **Bluetooth Controlled Car:** Control a car via Bluetooth.
2. **Wireless Weather Station:** Transmit weather data wirelessly.
3. **RFID Attendance System:** Record attendance using RFID.
4. **Wireless Gesture Control:** Control devices with gestures.
5. **NRF24L01 Wireless Communication:** Establish wireless communication between two Arduino boards.
6. **CADIO -based Home Automation:** Control home devices using **CADIO**.
7. **Internet of Things (IoT) Pet Feeder:** Feed your pet remotely.
8. **Wi-Fi Controlled Robot:** Control a robot through Wi-Fi.
9. **Twitter-Enabled Plant:** Tweet when your plant needs water.
10. **IR Communication:** Use infrared for communication between devices.

**31-40: Display Projects**

1. **7-Segment Display Counter:** Create a simple counter using 7-segment displays.
2. **Dot Matrix Display Scrolling Text:** Display scrolling text on a dot matrix display.
3. **OLED Temperature and Humidity Display:** Display sensor data on an OLED screen.
4. **LCD Touchscreen Thermostat:** Control temperature using a touchscreen.
5. **LED Matrix Game:** Create simple games on an LED matrix.
6. **Pong Game:** Classic Pong game using Arduino and a display.
7. **Arduino GPS Speedometer:** Display speed using GPS data.
8. **School bell with Real-Time Clock (RTC) with Temperature:** Display time and temperature.
9. **QR Code Scanner:** Scan and display information from QR codes.
10. **LED Cube:** Build a 3D cube using LEDs.

**41-50: Advanced Projects**

1. **Voice-controlled Home Automation:** Control home devices with voice commands.
2. **Biometric Door Lock:** Use fingerprint recognition for door access.
3. **Gesture-controlled Robot Arm:** Control a robot arm using gestures.
4. **Smart Mirror:** Display time, weather, and other information on a mirror.
5. **Arduino Game Console:** Build a simple game console using Arduino.
6. **Weather Forecast Display:** Fetch and display weather forecasts.
7. **Mind-controlled Arduino:** Interface Arduino with EEG for mind control.
8. **Arduino Music Player:** Play music using an Arduino and an SD card module.
9. **Automated Plant Watering System:** Water plants based on soil moisture.
10. **Home Security System:** Intruder detection with notifications.