**RD INFOTECH Internship - Task 1 Report**

**LED Blinking**

**Objective**: To write a program that blinks an LED at regular intervals using a microcontroller (e.g., Arduino UNO).

**Internship Domain**: Embedded Systems / IoT Development Hardware

**Requirements**:

1. Arduino UNO (or any compatible microcontroller)
2. LED (any color)
3. Resistor (220 ohms)
4. Breadboard
5. Jumper wires Software

**Procedure:**

Connect the positive terminal (anode) of the LED to digital pin 13 of the Arduino through a 220-ohm resistor.

The negative terminal (cathode) should be connected to GND.

**Code**:

void setup()

{

pinMode(13, OUTPUT);

}

void loop()

{

digitalWrite(13, HIGH

delay(1000);

digitalWrite(13, LOW);

delay(1000);

}

**Explanation**:-

* The setup() function sets pin 13 as an output pin.
* The loop() function continuously turns the LED ON and OFF with a delay of 1 second (1000 milliseconds).

**Outcome**: The LED will blink on and off every 1 second, demonstrating the basic working of a digital output pin on a microcontroller. Conclusion: This task introduces beginners to microcontroller programming, basic circuit building, and working with GPIO pins. It forms the foundation for more complex embedded projects.

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