EXERCISE !

BLINK AN LED Switch on and off for 1000 milli sec

Lets Begin To control an output device based on Controller program
LED Blinking:

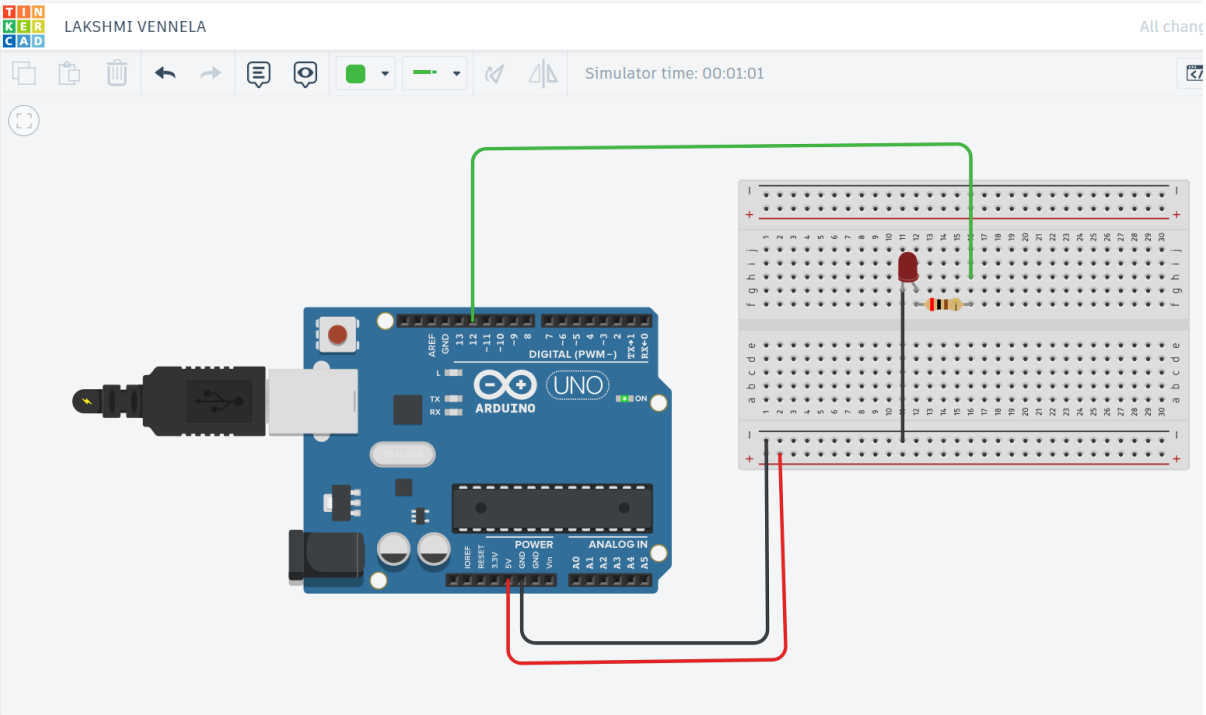
Task:

Blink the LED such that it is ON and OFF

Questions:

- Find the meaning of the following commands in the programming
  - void setup()
  - void loop()
  - delay()
  - pinMode
  - digitalWrite

34



Hands-on Activity: Blink an LED

- **Components:** Arduino Uno, LED, 220Ω Resistor
- **Circuit Diagram:**
- **Code:**

```
void setup()
{
        pinMode(12, OUTPUT);
}
void loop()
{
        digitalWrite(12, HIGH); // Turn LED on
        delay(1000); // Wait 1 second
        digitalWrite(12, LOW); // Turn LED off
        delay(1000); // Wait 1 second
}
```

YOU HAVE SUCESSFULLY CONTROLLED LED BASED ON TIME .

NOW TIME TO PONDER WHAT HAPPENED

WHAT IF I DON'T CONNECT RESISTOR

WHAT IF I INCREASE RESISTANCE

WHY RESISTOR IS NEEDED

WHAT IS DELAY IN CODE

WHAT IS HIGH , LOW

WHAT IS DIGITAL WRITE

DID I READ DATA WHERE IS SENSOR?????

OH CONTROLLED ONLY ACTUATOR (LED) based on TIME