Lab 3
ICS423 - Internet of Things

Jayant Kolapkar - 2021BCS0132

Question

Task 1 : write a sketch that uses 10 LED strips (make the 10 LEDs to blink).

Task 2: Write a sketch that sequentially blinks LED strips (20 numbers) in three different colors.

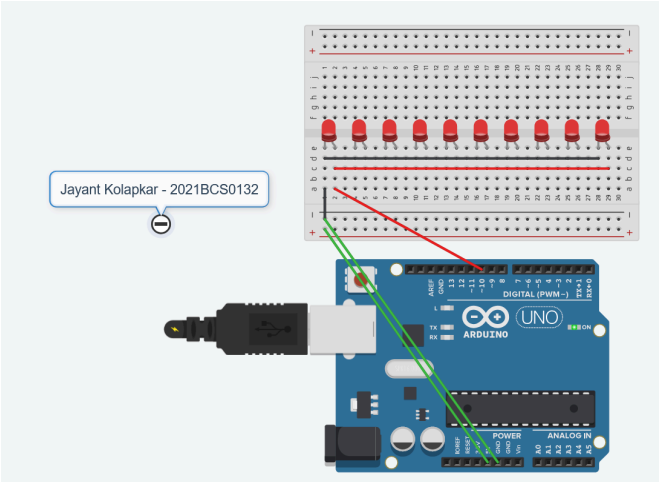
Task 3: Identify a unique pattern to blink LED strips to use in your study room.

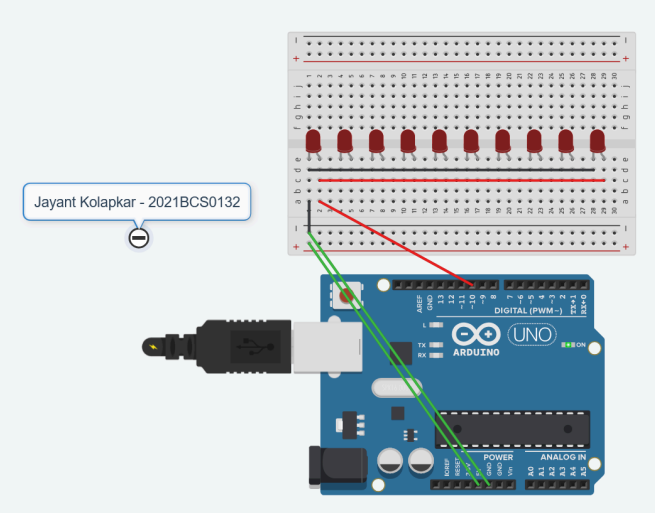
Task 1

Code

```
int ledPin=10; //definition digital 8 pins as pin to control the LED
void setup()
{
    pinMode(ledPin,OUTPUT);     //Set the digital 8 port mode, OUTPUT:
Output mode
}
void loop()
{
    digitalWrite(ledPin,HIGH); //HIGH is set to about 5V PIN8
    delay(1000);               //Set the delay time, 1000 = 1S
    digitalWrite(ledPin,LOW);  //LOW is set to about 5V PIN8
    delay(1000);               //Set the delay time, 1000 = 1S
}
```

Output





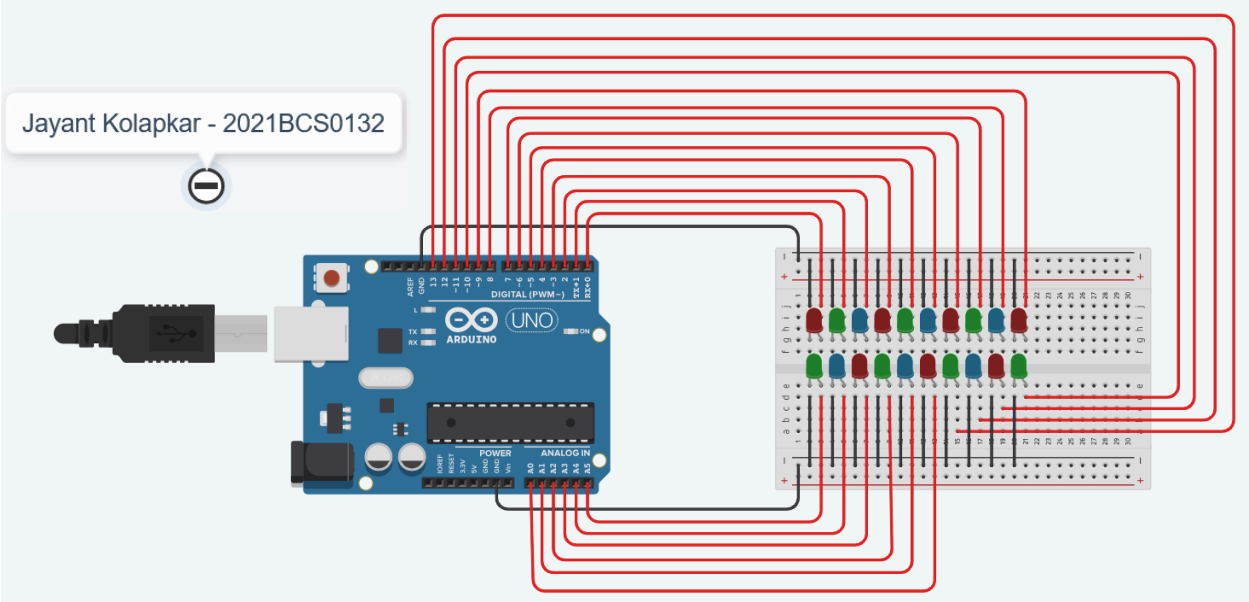
Task 2

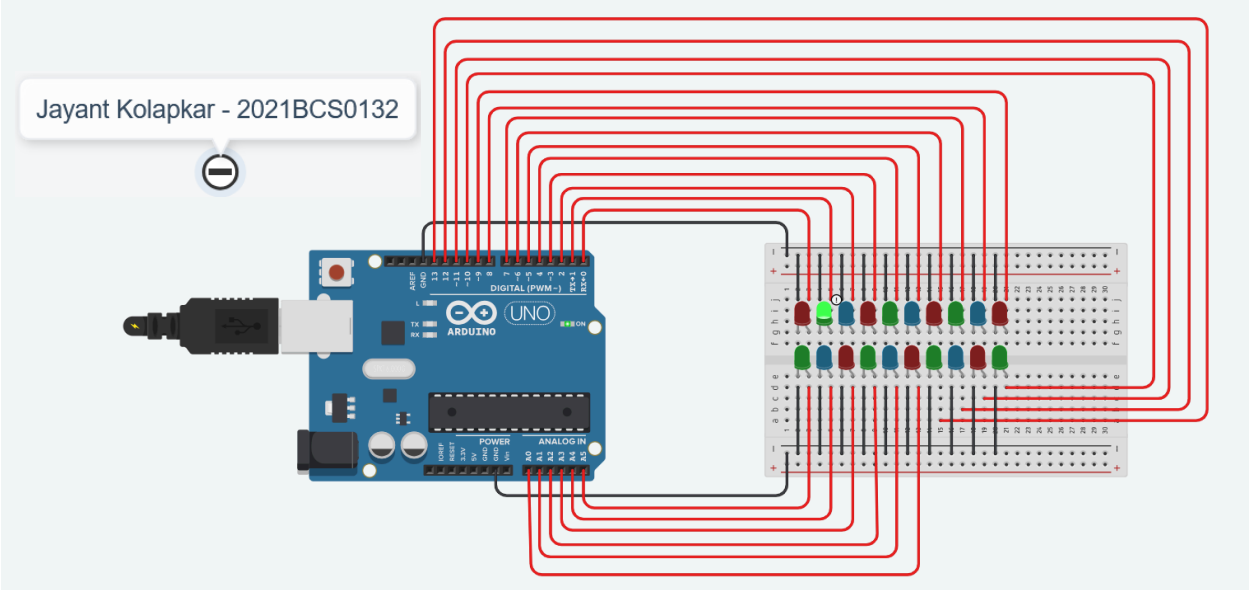
Code

```
void setup()
{
  for (int pin = 0; pin <= 13; pin++)
  {
    pinMode(pin, OUTPUT);
  }
  for (int pin = A0; pin <= A5; pin++)
  {
    pinMode(pin, OUTPUT);
  }
}
void loop()
{
  for (int pin = 0; pin <= 13; pin++)
  {
    digitalWrite(pin, HIGH);
    delay(1000);
    digitalWrite(pin, LOW);
```

```
  }
  for (int pin = A0; pin <= A5; pin++)
  {
    digitalWrite(pin, HIGH);
    delay(1000);
    digitalWrite(pin, LOW);
  }
}
```

Output

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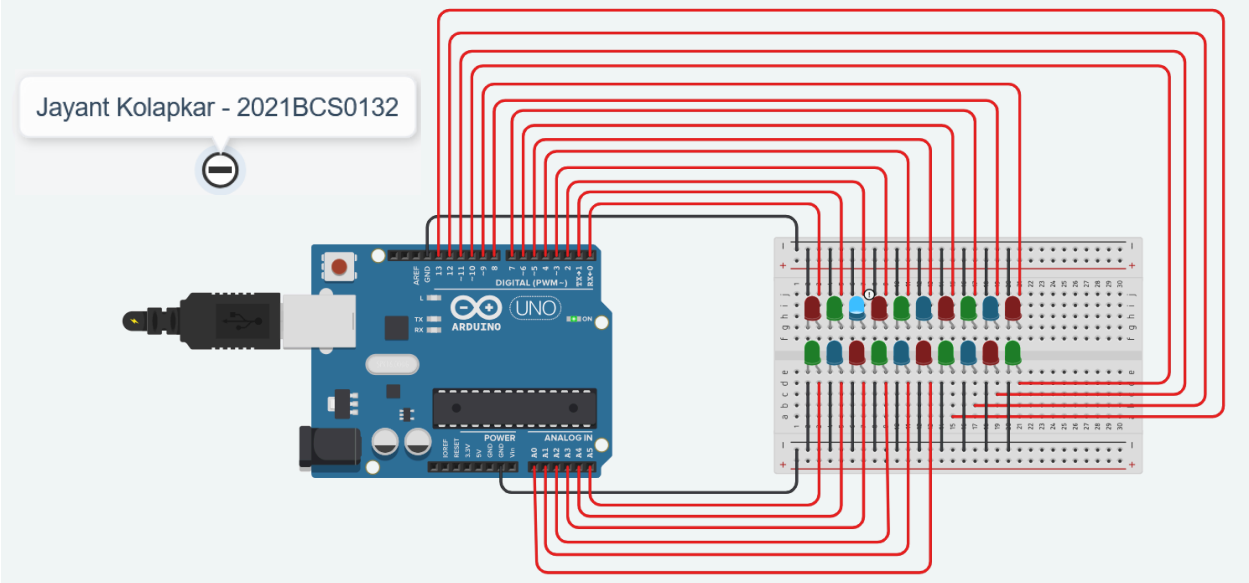
DIGITAL (PWM~)
UNO
ARDUINO
POWER
ANALOG IN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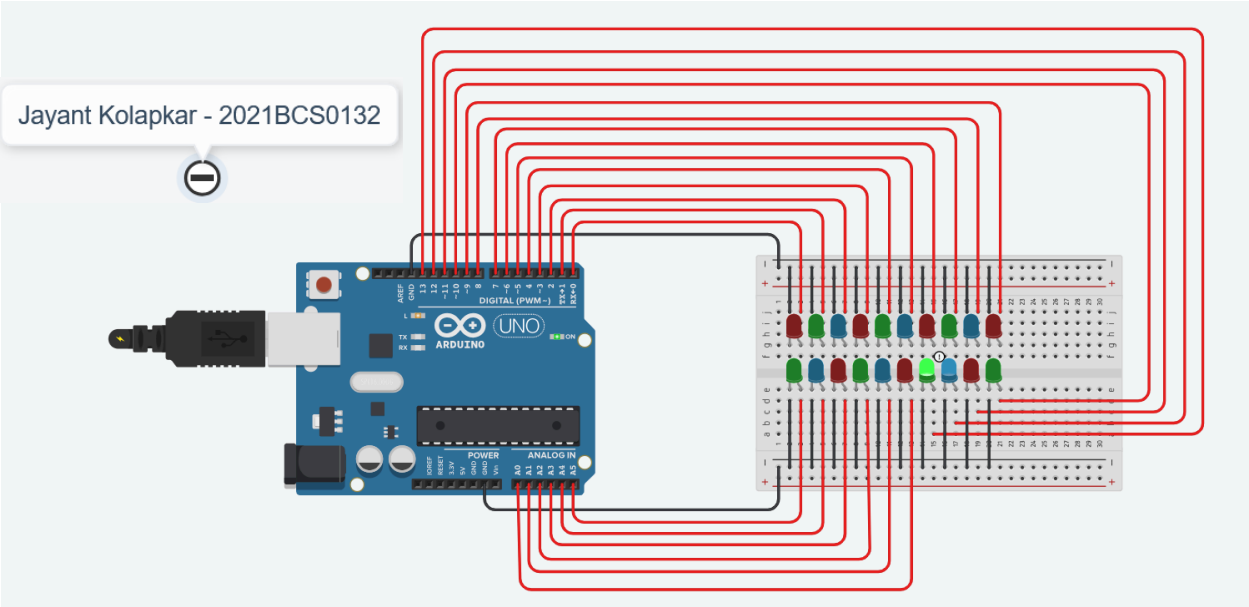
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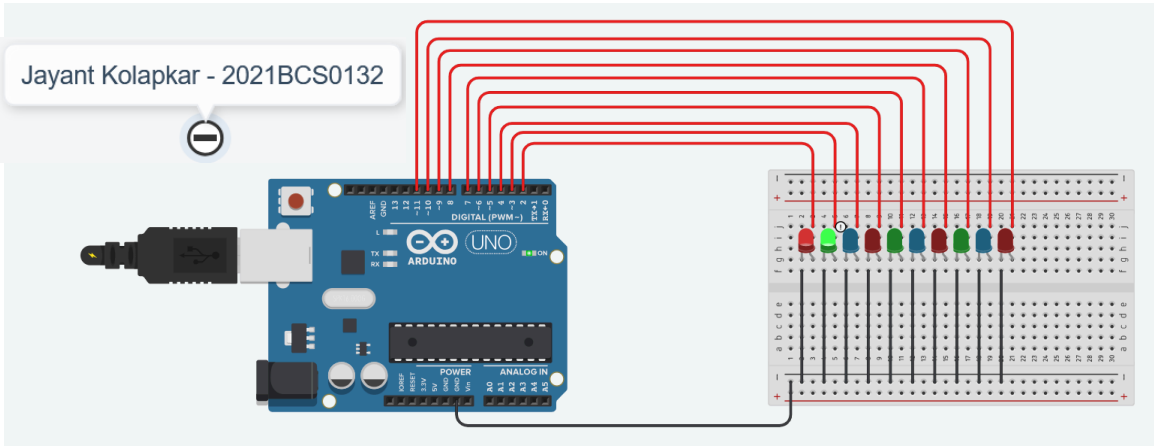
Task 3

Code

```
void setup()
{
  for (int i = 2; i < 12; i++)
  {
    pinMode(i, OUTPUT);
  }
}
void loop()
{
  for (int k = 0; k < 10; k++)
  {
    for (int i = 2; i < 12; i++)
    {
      for (int j = i; j <= min(i + k, 11); j++)
        digitalWrite(j, 1);
      delay(500);
      for (int j = i; j <= min(i + k, 11); j++)
        digitalWrite(j, 0);
    }
  }
}
```

Output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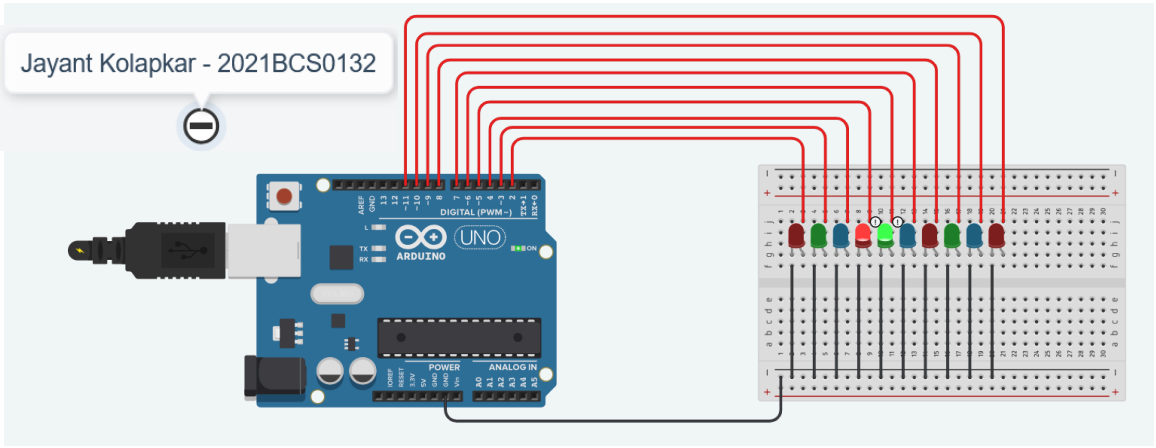
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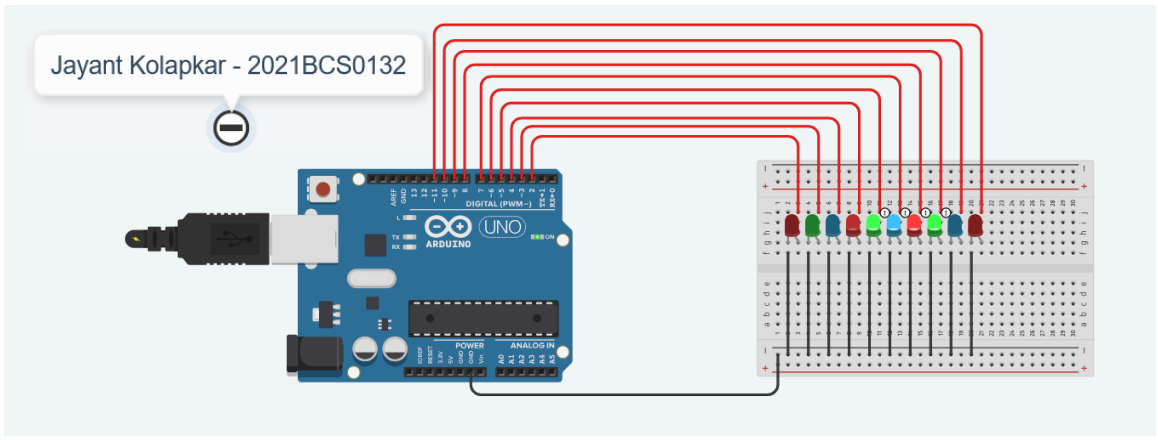
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