

## Internet of Things: Assignment 2

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### Question 1:

The sequence of making LEDs glow is: **Blue(3 sec) → Red(2 sec) → Green(3 sec).**

Code for the sequence in TinkerCad is:

```
// A2Q1
void setup()
{
  pinMode(8, OUTPUT);
  pinMode(10, OUTPUT);
  pinMode(13, OUTPUT);
}

void loop()
{
  // for Blue LED
  digitalWrite(10, HIGH);
  delay(3000);
  digitalWrite(10, LOW);

  // for Red LED
  digitalWrite(13, HIGH);
  delay(2000);
  digitalWrite(13, LOW);

  // for Green LED
  digitalWrite(8, HIGH);
  delay(3000);
  digitalWrite(8, LOW);
}
```

### Question 2:

Three LEDs (red, blue and green) are connected through push buttons (b1, b2 and b3 respectively) and all LEDs cannot glow at a time.

Code for the desired circuit in TinkerCad is:

```
void setup()
```

```
{
  // for red led
  pinMode(2, INPUT);
  pinMode(13, OUTPUT);
  // for blue led
  pinMode(3, INPUT);
  pinMode(10, OUTPUT);
  // for green led
  pinMode(4, INPUT);
  pinMode(8, OUTPUT);
}

void loop()
{
  // for red led
  if(digitalRead(2) == 1)
  {
    digitalWrite(13, HIGH);
  }
  else
  {
    digitalWrite(13, LOW);
    // for blue led
    if(digitalRead(3) == 1)
    {
      digitalWrite(10, HIGH);
    }
    else
    {
      digitalWrite(10, LOW);
      // for green led
      if(digitalRead(4) == 1)
      {
        digitalWrite(8, HIGH);
      }
      else
      {
        digitalWrite(8, LOW);
      }
    }
  }
}
```