Assignment 1: Blinky

In this assignment you will take what you have learnt in the Blink 1 LED lecture and tinker with the code to make it do something slightly different.

Assignment instructions

Take the Blink 1 LED code and edit it so that the LED will flash consecutively at different ON/OFF rates. Each question will tell you exactly what rates your LED must flash at.

Questions for this assignment

1. Edit the code so that the LED will follow this pattern:

   ON - 1 second

   OFF - 1 second

   ON - 2 seconds

   OFF - 2 seconds

   REPEAT

2. Edit the code so that the LED will follow this pattern:

   ON - 250ms

   OFF - 1 second

   ON - 100ms

   OFF - 2 seconds

   REPEAT

3. Edit the code so that the LED will follow this pattern:

   ON - 100ms

   OFF - 100ms

   ON - 250ms

   OFF - 250ms

ON - 500ms

OFF - 500ms

ON - 1000ms

OFF - 1000ms

REPEAT

Assignment solutions

1. Edit the code so that the LED will follow this pattern:

   ON - 1 second

   OFF - 1 second

   ON - 2 seconds

   OFF - 2 seconds

   REPEAT

```
void loop()
{
    digitalWrite(2, HIGH);
    delay(1000);
    digitalWrite(2, LOW);
    delay(1000);
    digitalWrite(2, HIGH);
    delay(2000);
    digitalWrite(2, LOW);
    delay(2000);
}
```

2. Edit the code so that the LED will follow this pattern:

ON - 250ms

OFF - 1 second

ON - 100ms

OFF - 2 seconds

REPEAT

```
void loop()
{
    digitalWrite(2, HIGH);
    delay(250);
    digitalWrite(2, LOW);
    delay(1000);
    digitalWrite(2, HIGH);
    delay(100);
    digitalWrite(2, LOW);
    delay(2000);
}
```

3. Edit the code so that the LED will follow this pattern:

   ON - 100ms

   OFF - 100ms

   ON - 250ms

   OFF - 250ms

   ON - 500ms

   OFF - 500ms

   ON - 1000ms

   OFF - 1000ms

   REPEAT

```
void loop()
{
    digitalWrite(2, HIGH);
    delay(100);
    digitalWrite(2, LOW);
    delay(100);
    digitalWrite(2, HIGH);
    delay(250);
    digitalWrite(2, LOW);
    delay(250);
    digitalWrite(2, HIGH);
    delay(500);
    digitalWrite(2, LOW);
    delay(500);
    digitalWrite(2, HIGH);
    delay(1000);
    digitalWrite(2, LOW);
    delay(1000);
}
```