Written Comments\_Demo8\_EX7

**How this affects the sound of the output?**

When changing the buffer[k] = x0 to buffer[k] = y0, it adds another echo as a loop of N samples. It means that the later 800 samples will echo the former 800 samples with the amplitude plus G(0.8). With the times of every 800 samples increasing, the coefficient will reduce, for example, 0.8, 0.64, 0,512, 0.4096. finally, former echo will not be heard.

**With this change, what is the difference equation, transfer function, and impulse response of the system?**

Difference equation: y(n) = b0 x(n) + G y(n-N)

Transfer function:

Impulse response:

**What happens when the gain for the delayed value is greater than 1?**

The echo mentioned in Q1 will grown stronger after time.