Assignment 3

Keith Skinner

Code

```
int main(void){
    volatile uint32_t delay;
    Grader_Init("JV1234","Fall 2019");

    //Enable ports E and B (0A 1B 2C 3D 4E)
    uint32_t enabled_ports = SYSCTL_RCGCGPIO_R;
    enabled_ports |= (1 << 4) | (1 << 1);
    SYSCTL_RCGCGPIO_R = enabled_ports;
    __asm__("nop");
    __asm__("nop");

    //Set Pins PE0, PE1, and PE2 as input
    uint32_t dir_pins_e = GPIO_PORTE_DIR_R;
    uint32_t unset = ~((1 << 0) | (1 << 1) | (1 << 2));
    dir_pins_e &= unset;
    GPIO_PORTE_DIR_R = dir_pins_e;

    //Set Pin PB4 as output
    uint32_t dir_pins_b = GPIO_PORTB_DIR_R;
    dir_pins_b |= (1 << 4);
    GPIO_PORTB_DIR_R = dir_pins_b;

    //Set Pins PE0, PE1, and PE2 as digital
    uint32_t den_pins_e = GPIO_PORTE_DEN_R;
    den_pins_e |= (1 << 0) | (1 << 1) | (1 << 2);
    GPIO_PORTE_DEN_R = den_pins_e;

    //Set Pin PB4 as output
    uint32_t den_pins_b = GPIO_PORTB_DEN_R;
    den_pins_b |= (1 << 4);
    GPIO_PORTB_DEN_R = den_pins_b;

    while(true){
        // put your input, calculations, output here
        uint32_t data = GPIO_PORTE_DATA_R;
        data &= ~(1<<4);

        //data |= (1<<4);
        data = (data<<1)^(data<<2)^(data<<3);
        data <<= 1;
        GPIO_PORTB_DATA_R = data;
    }
}
```

Output

```
EE319K HW3 Fall 2019
EID = JV1234
Test all eight possible input patterns
Grade = 12,24,36,48,60,72,84,100, perfect!
Copy/paste this magic code into Canvas
VNTYbsKrAhU47iuLv7KjROkbGTcJ
```