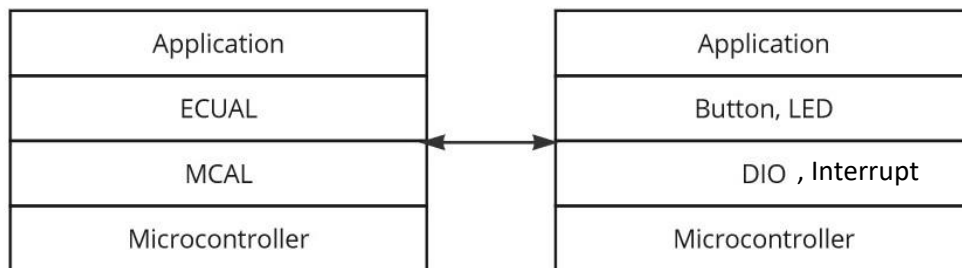


# Design document

Project title: LED\_Sequence\_V2

Name: Amr El-Abd



Program APIs:

```
EN_return DIO_init (EN_ports port, EN_pins pin, EN_direction direction);
EN_return DIO_write (EN_ports port, EN_pins pin, EN_state state);
EN_return DIO_read (EN_ports port, EN_pins pin, uint8_t* value);

EN_return LED_init (EN_ports port, EN_pins pin);
EN_return LED_on (EN_ports port, EN_pins pin);
EN_return LED_off (EN_ports port, EN_pins pin);

EN_return button_init(EN_ports port, EN_pins pin);
EN_return button_read(EN_ports port, EN_pins pin, EN_state* state);

EN_int__error_t EXI_Enable (EN_int_t Interrupt);
EN_int__error_t EXI_Disable (EN_int_t Interrupt);
EN_int__error_t EXI_Trigger(EN_int_t Interrupt, EN_trig trigger);
void EXI_SetCallBack(EN_int_t Interrupt, void(*ptrf)(void));

void APP_init();
void APP_start();
```

The sequence is:

1. Initially (OFF, OFF, OFF, OFF)
2. Press 1 (ON, OFF, OFF, OFF)
3. Press 2 (ON, ON, OFF, OFF)
4. Press 3 (ON, ON, ON, OFF)
5. Press 4 (ON, ON, ON, ON)
6. Press 5 (OFF, ON, ON, ON)
7. Press 6 (OFF, OFF, ON, ON)
8. Press 7 (OFF, OFF, OFF, ON)
9. Press 8 (OFF, OFF, OFF, OFF)
10. Press 9 (ON, OFF, OFF, OFF)

