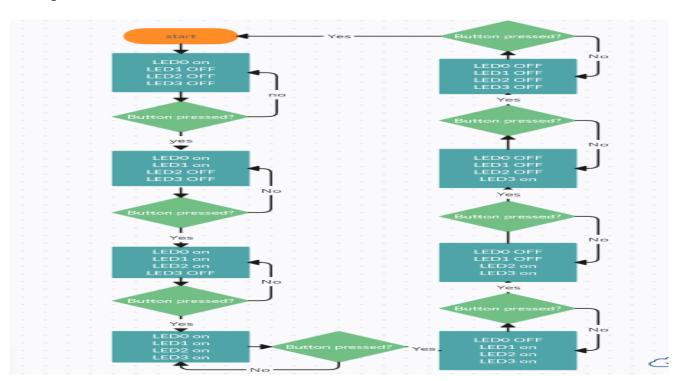
Project Title:- LED_Sequence V1.0

Developer name:-Moustafa Abdelrahim

Project Description:- it's a LED sequence program that follows the next sequence:-

- 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)

Project flow chart:-



Layered architecture:-

SERVICE	APPLICATION
	HAL
	MCAL
	MicroController

utiles	APPLICATION	
	Button	LED
STD_Types	DIO	
	MicroController	

Program APIS:-

```
1)DIO_ERROR_TYPE DIO_INITPIN(DIO_PIN_TYPE
    PIN,DIO_PINSTATUS_TYPE STATUS);
2)DIO_ERROR_TYPE DIO_WRITEPIN(DIO_PIN_TYPE
    PIN,DIO_VOLTAGE_TYPE VOLTAGE);
3)DIO_ERROR_TYPE DIO_READPIN(DIO_PIN_TYPE
    PIN,DIO_VOLTAGE_TYPE* VOLT);
4)LED_ERROR_TYPE LED_INIT(DIO_PIN_TYPE PIN);
5)LED_ERROR_TYPE LED_ON(DIO_PIN_TYPE PIN);
6)LED_ERROR_TYPE LED_OFF(DIO_PIN_TYPE PIN);
7)BUTTON_ERROR_TYPE Button_INIT(DIO_PIN_TYPE
    PIN);
8)BUTTON ERROR TYPE Button read(DIO PIN TYPE
```

PIN, DIO VOLTAGE TYPE*VOLT);