TIMER1 Driver for AVR Microcontrollers

Version: 1st **Date: 26/10/2023**

- **API specification**

1.1 Type definitions

Name:	Timer_clock
Type:	Enum
Element:	*NO_CLOCK,F_CPU_CLOCK,F_CPU_8,F_CPU_64,F_CPU_256,F_CPU_1024*
Description:	These are the return which clock you use

Name:	OC1A_Mode_type
Type:	Enum
Element:	*OCRA_DISCONNECTED*=0, *OCRA_TOGGLE*, *OCRA_NON_INVERTING*, *OCRA_INVERTING*
Description:	These are the return which mode you use in pwm

Name:	TIMER_config
Type:	struct
Element:	uint16 init_value; TIMER1_Clock prescaler; uint8 compare_valueA; uint8 compareValueB; uint8 dutyCycle ; OC1A_Mode_type oc1a_mode
Description:	These are timer config (intial value, clock,compare value,duty cycle in pwm)

2. Function definitions

Service name**:**	Timer_init
Syntax:	void Timer_init(TIMER_config * Config_Ptr)
Parameters (in):	pointer to struct (TIMER_congif)
Parameters (in/out):	none

Parameters (out):	none
Return value:	none
Description:	Initialize the Timer1
NUM:	

Service name**:**	Timer_deInit
Syntax:	void Timer_deInit();
Parameters (in):	
Parameters (in/out):	None
Parameters (out):	None
Return value:	None
Description:	deinitialize the Timer
NUM:	

Service name**:**	TIMER1_OVF_setCallBack
Syntax:	void TIMER1_OVF_setCallBack(void(*a_ptr)(void));

Parameters (in):	
Parameters (in/out):	None
Parameters (out):	pointer to Call Back function
Return value:	None
Description:	Function to set the Call Back function address for overfow mode
NUM:	

Service name**:**	TIMER1_CMPB_setCallBack
Syntax:	void TIMER1_CMPB_setCallBack(void(*a_ptr)(void));
Parameters (in):	
Parameters (in/out):	None
Parameters (out):	pointer to Call Back function
Return value:	None
Description:	Function to set the Call Back function address for compareB mode
NUM:	

Service name**:**	TIMER1_CMPA_setCallBack
Syntax:	void TIMER1_CMPA_setCallBack(void(*a_ptr)(void));
Parameters (in):	
Parameters (in/out):	None
Parameters (out):	pointer to Call Back function
Return value:	None
Description:	Function to set the Call Back function address for compareA mode
NUM:	