```
/***********************ApplicationAPIS*********************************/


SERVICE_init();
CHANGE_PWM_T1();
ULTRS_trig();









/***********************Service APIS*********************************/


uint8 SERVICE_init (void);
uint8 Delay(uint8 TIMER_ID,uint64 Delay);
```

```
/**********************Hardware Abstraction Layer APIS*********************************/



/**********************LCD APIS*********************************/

void Enable();
void CMD_WRT_8bit(uint8 cmd);
void CMD_WRT_4bit(uint8 cmd);
void DATA_WRT_8bit(uint8 data);
void DATA_WRT_4bit(uint8 data);
void LCD_INIT_4bit();
void LCD_CLR();
void LCD_Cursor_Home();
void LCD_CUSRSOR_POS(uint8 row , uint8 col);
void LCD_CHAR_DISP(uint8 row , uint8 col , uint8 data);
void LCD_String_DISP(uint8 row , uint8 col ,char *s);
void LCD_NUM_DISP(uint8 row , uint8 col ,uint16_t num);


/****************************ULTRASONIC APIS*********************************/

void ULTRS_init(void);
void ULTRS_trig(void);
void ULTRS_getDistance(void);

********************* MOTOR ************************************************
uint8 MOTOR_init(void);
uint8 MOTOR_Forward(uint8 Motor_Num);
uint8 MOTOR_Reverse(uint8 Motor_Num);
uint8 MOTOR_Stop(uint8 Motor_Num);
```

```
/**********************Microcontroller Abstraction Layer APIS**********************/


/**********************INTERRUPTS APIS**********************/


STD_Fun_t INTP_vidInit(void);

void INTP0_vidEnabled(void);
void INTP1_vidEnabled(void);
void INTP2_vidEnabled(void);

void INTP0_vidDisabled(void);
void INTP1_vidDisabled(void);
void INTP2_vidDisabled(void);

void INTP0_VidSelectEvent(uint8 COPY_u8EventState);
void INTP1_VidSelectEvent(uint8 COPY_u8EventState);
void INTP2_VidSelectEvent(uint8 COPY_u8EventState);

void INTP_VidDisableGlobal(void);

void INTP0_vidSetCallBack(void(*COPY_pvidCallBackFunction)(void));
void INTP1_vidSetCallBack(void(*COPY_pvidCallBackFunction)(void));
void INTP2_vidSetCallBack(void(*COPY_pvidCallBackFunction)(void));


/*****************************ICU APIS**********************************/
void ICU_init(void);
void ICU_setCallBack(void(*COPY_CallBackFunction)(void));
void ICU_getPulseTime(void);
void ICU_Count_OV();
```

********** TIMER **********

```
uint8 TIMER_init(void);

uint8 TIMER_start(uint8 TIMER_ID);
uint8 TIMER_stop(uint8 TIMER_ID);

void CHANGE_PWM_T1(uint8 PWM_DUTYCYCLE_chA);

void TIMER0_OVF_setCallBack(void (*COPY_TIMER0_OVF_callBackPtr)(void));
void TIMER0_CMP_setCallBack(void (*COPY_TIMER0_CMP_callBackPtr)(void));
void TIMER1_OVF_setCallBack(void (*COPY_TIMER1_OVF_callBackPtr)(void));
void TIMER1_CMPA_setCallBack(void (*COPY_TIMER1_CMPA_callBackPtr)(void));
void TIMER1_CMPB_setCallBack(void (*COPY_TIMER1_CMPB_callBackPtr)(void));
void TIMER2_OVF_setCallBack(void (*COPY_TIMER2_OVF_callBackPtr)(void));
void TIMER2_CMP_setCallBack(void (*COPY_TIMER2_CMP_callBackPtr)(void));
```

```
/**********GPIO APIS**********/

STD_Fun_t DIO_Init(void);
STD_Fun_t DIO_Write(PINS_t pin , uint8 value);
STD_Fun_t DIO_Read( PINS_t pin ,uint8 *PVal);
```