```c
/* Name: David (DongYun) Kim
 * SID: 200405213
 * Course: ENEL351
 * Description: ENEL351 Project - Smart Parking System
 * File name: gpio.c
 */

#include "stm32f10x.h"
#include "gpio.h"

void LD2_init(void)
{
  //Turn on Clocks for Port A, B, and C
 RCC->APB2ENR |= (RCC_APB2ENR_ADC1EN | RCC_APB2ENR_IOPAEN | RCC_APB2ENR_AFIOEN |
RCC_APB2ENR_IOPBEN | RCC_APB2ENR_IOPCEN );
 GPIOA->CRL &= ~GPIO_CRL_CNF5 & ~GPIO_CRL_MODE5;
 GPIOA->CRL |= GPIO_CRL_MODE5;

 //PA7
 GPIOA->CRL |= GPIO_CRL_MODE7_0 | GPIO_CRL_MODE7_1;
 GPIOA->CRL &= ~GPIO_CRL_CNF7_0 &~ GPIO_CRL_CNF7_1;

 //GPIOA->ODR |= GPIO_ODR_ODR7;


 //PA8
 GPIOA->CRH |= GPIO_CRH_MODE8_0 | GPIO_CRH_MODE8_1;
 GPIOA->CRH &= ~GPIO_CRH_CNF8_0 &~ GPIO_CRH_CNF8_1;

 //GPIOA->ODR |= GPIO_ODR_ODR8;

 //PA9
 GPIOA->CRH |= GPIO_CRH_MODE9_0 | GPIO_CRH_MODE9_1;
 GPIOA->CRH &= ~GPIO_CRH_CNF9_0 &~ GPIO_CRH_CNF9_1;

 //GPIOA->ODR |= GPIO_ODR_ODR9;

 //PA10
 GPIOA->CRH |= GPIO_CRH_MODE10_0 | GPIO_CRH_MODE10_1;
 GPIOA->CRH &= ~GPIO_CRH_CNF10_0 &~ GPIO_CRH_CNF10_1;

 //GPIOA->ODR |= GPIO_ODR_ODR10;

 //PC6
 GPIOC->CRL |= GPIO_CRL_MODE6_0 | GPIO_CRL_MODE6_1;
 GPIOC->CRL &= ~GPIO_CRL_CNF6_0 &~ GPIO_CRL_CNF6_1;

 //PC8
 GPIOC->CRH |= GPIO_CRH_MODE8_0 | GPIO_CRH_MODE8_1;
 GPIOC->CRH &= ~GPIO_CRH_CNF8_0 &~ GPIO_CRH_CNF8_1;

 //PC10
 GPIOC->CRH |= GPIO_CRH_MODE10_0 | GPIO_CRH_MODE10_1;
 GPIOC->CRH &= ~GPIO_CRH_CNF10_0 &~ GPIO_CRH_CNF10_1;

 //PC12
 GPIOC->CRH |= GPIO_CRH_MODE12_0 | GPIO_CRH_MODE12_1;
 GPIOC->CRH &= ~GPIO_CRH_CNF12_0 &~ GPIO_CRH_CNF12_1;
}


void LD2_OFF(void)
{
 GPIOA->BSRR |= GPIO_BSRR_BR5;
}

void LD2_ON(void)
```

```
{
 GPIOA->BSRR |= GPIO_BSRR_BS5;
}

void LD2_TOGGLE(void)
{
 GPIOA->ODR ^= GPIO_ODR_ODR5;
}
```