PROJECT 2
Presentation

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Microprocessor
01205311

Project Number 2

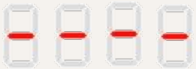
1. Write program in c
2. Start your program by displaying ‘ 7 7 7 7 ‘ on 7-segments

3. . After 2 seconds, display last 4 digits of one of your group member ID

4. After 2 seconds, display first 4 digits of one of your group member ID

5. After 2 seconds, display last 4 digits of the summation of all students ID in your group

6. After 2 seconds, display ‘ - - - - ‘ and loop back to 3. and so on.

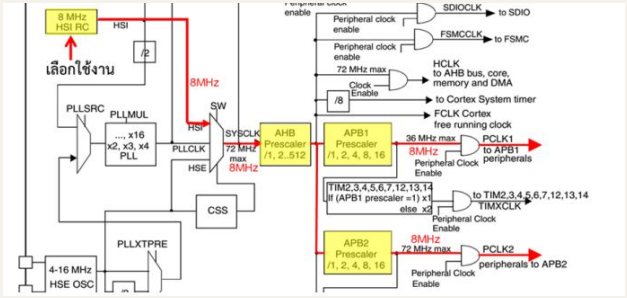


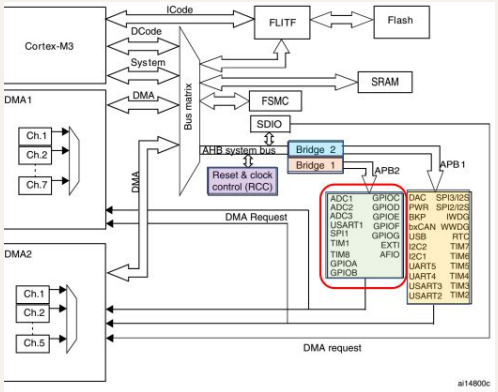
Code

```
/* Includes */
#include <stddef.h>
#include "stm32f10x.h"
#include "stm32f10x_conf.h"
/*
**===========================================================================
**
**  Abstract: main program
**
**===========================================================================
*/
```

Code

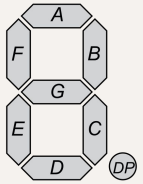
```
int main(void)
{
 GPIO_InitTypeDef GPIO_InitStruct;
 RCC_DeInit();
 RCC_APB2PeriphClockCmd(RCC_APB2Periph_AFIO, ENABLE);
 RCC_APB2PeriphClockCmd(RCC_APB2Periph_GPIOB, ENABLE);
 GPIO_PinRemapConfig(GPIO_Remap_SWJ_JTAGDisable, ENABLE);
 GPIO_InitStruct.GPIO_Pin= GPIO_Pin_0|GPIO_Pin_1|GPIO_Pin_3|GPIO_Pin_4|
 GPIO_Pin_8|GPIO_Pin_9| GPIO_Pin_10|GPIO_Pin_11|GPIO_Pin_12|GPIO_Pin_13|
 GPIO_Pin_14|GPIO_Pin_15;
 GPIO_InitStruct.GPIO_Speed = GPIO_Speed_50MHz;
 GPIO_InitStruct.GPIO_Mode = GPIO_Mode_Out_PP;
 GPIO_Init(GPIOB, &GPIO_InitStruct);
```



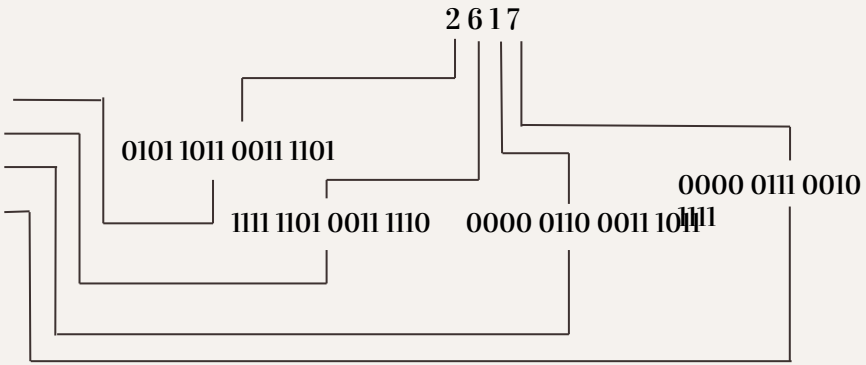


Code

```
int count=300000;
 while (count>0)
 {
  GPIO_Write(GPIOB, 0x700);
  count--;
 }
 /* Infinite loop */
 while (1)
 {
 int count=110000;
 while (count>0) //2617
 {
  GPIO_Write(GPIOB, 0x5B3D);
  GPIO_Write(GPIOB, 0x7D3E);
  GPIO_Write(GPIOB, 0x0637);
  GPIO_Write(GPIOB, 0x072F);
  count--;
 }
```

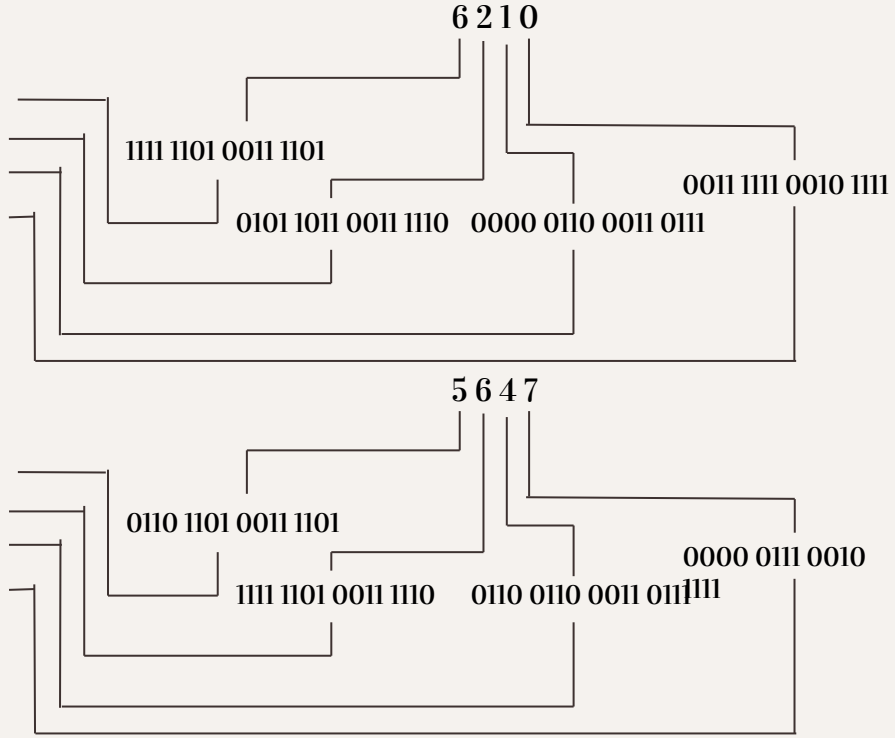


- GPIOB 8 – 15 used for creating character pattern (create 0 – 9 number)
- GPIOB 0, 1, 3, 4 used for controlling on and off 7 – segment digit (logic 0)



Code

```
count= 110000;
 while (count>0) //6210
 {
  GPIO_Write(GPIOB, 0x7D3D);
  GPIO_Write(GPIOB, 0x5B3E);
  GPIO_Write(GPIOB, 0x0637);
  GPIO_Write(GPIOB, 0x3F2F);
  count--;
 }
count= 110000;
 while (count>0) //5647
 {
  GPIO_Write(GPIOB, 0x6D3D);
  GPIO_Write(GPIOB, 0x7D3E);
  GPIO_Write(GPIOB, 0x6637);
  GPIO_Write(GPIOB, 0x072F);
  count--;
 }
```



Code

```
count=110000;
  while (count>0) //----
  {
   GPIO_Write(GPIOB, 0x403D);
   GPIO_Write(GPIOB, 0x403E);
   GPIO_Write(GPIOB, 0x4037);
   GPIO_Write(GPIOB, 0x402F);
   count--;
    }
  }
}
```