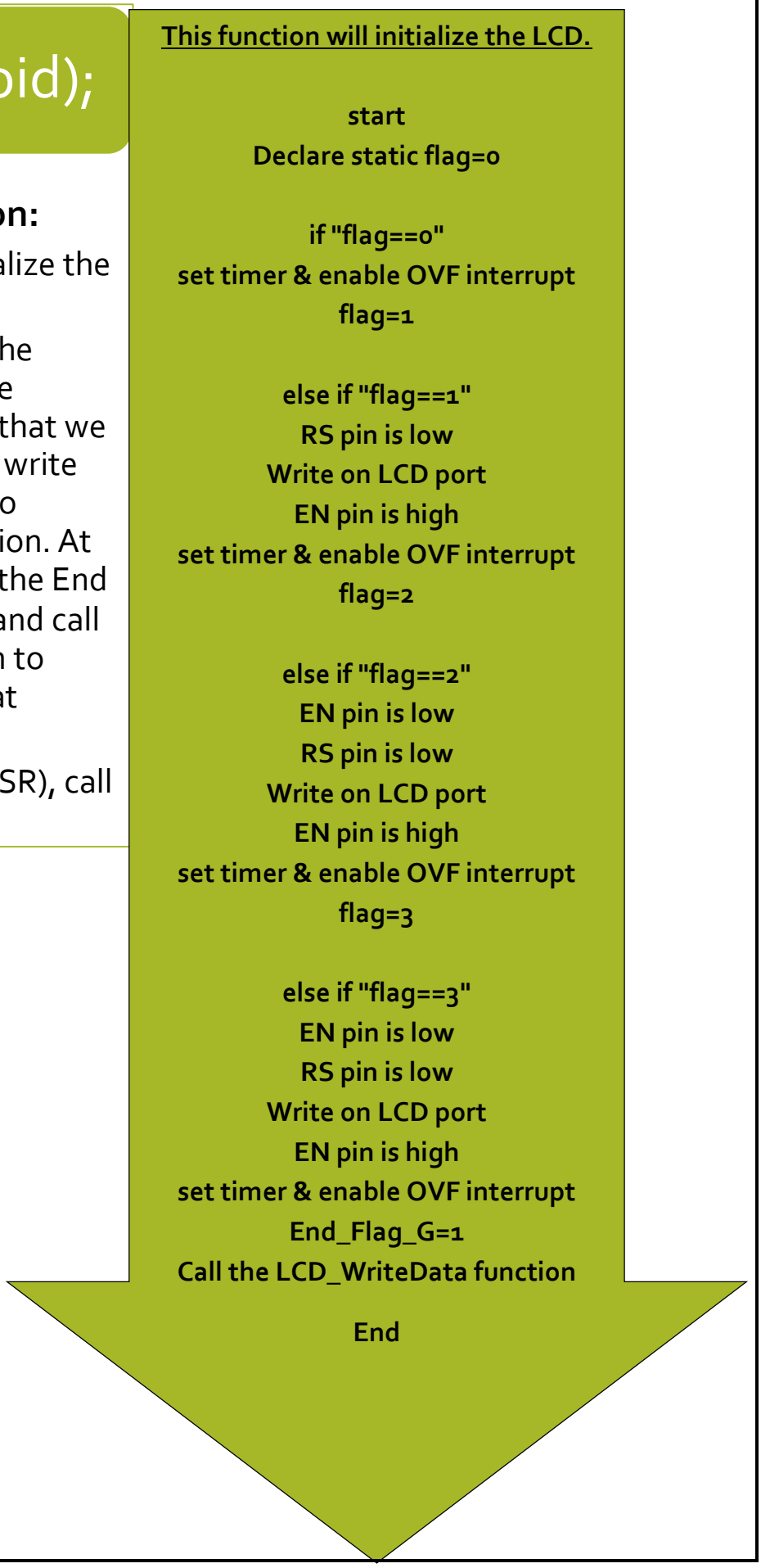
void LCD_init (void);

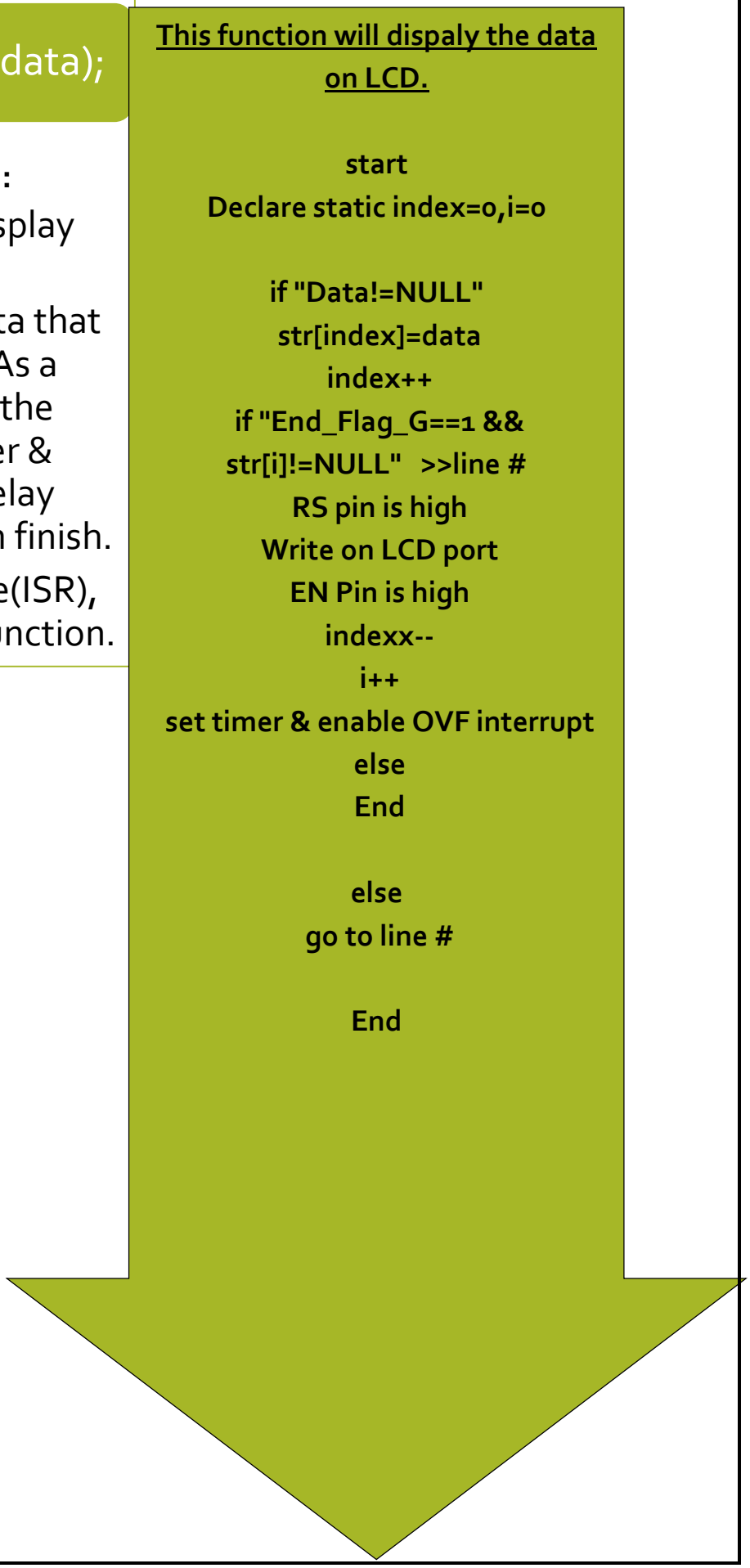
- **Function Description:**

- This function is used to initialize the LCD.
- Neglect the delay by using the timer with interrupt, and one interrupt equal to the delay that we want, so at this time we can write the command on LCD port to complete the LCD initialization. At the end of initialization, set the End Flag_G (Static Global Flag) and call the LCD_WriteChar function to check, if there are a data that wanted to print.
- In interrupt service routine(ISR), call the LCD_init function.



void LCD_WriteData(u8 data);

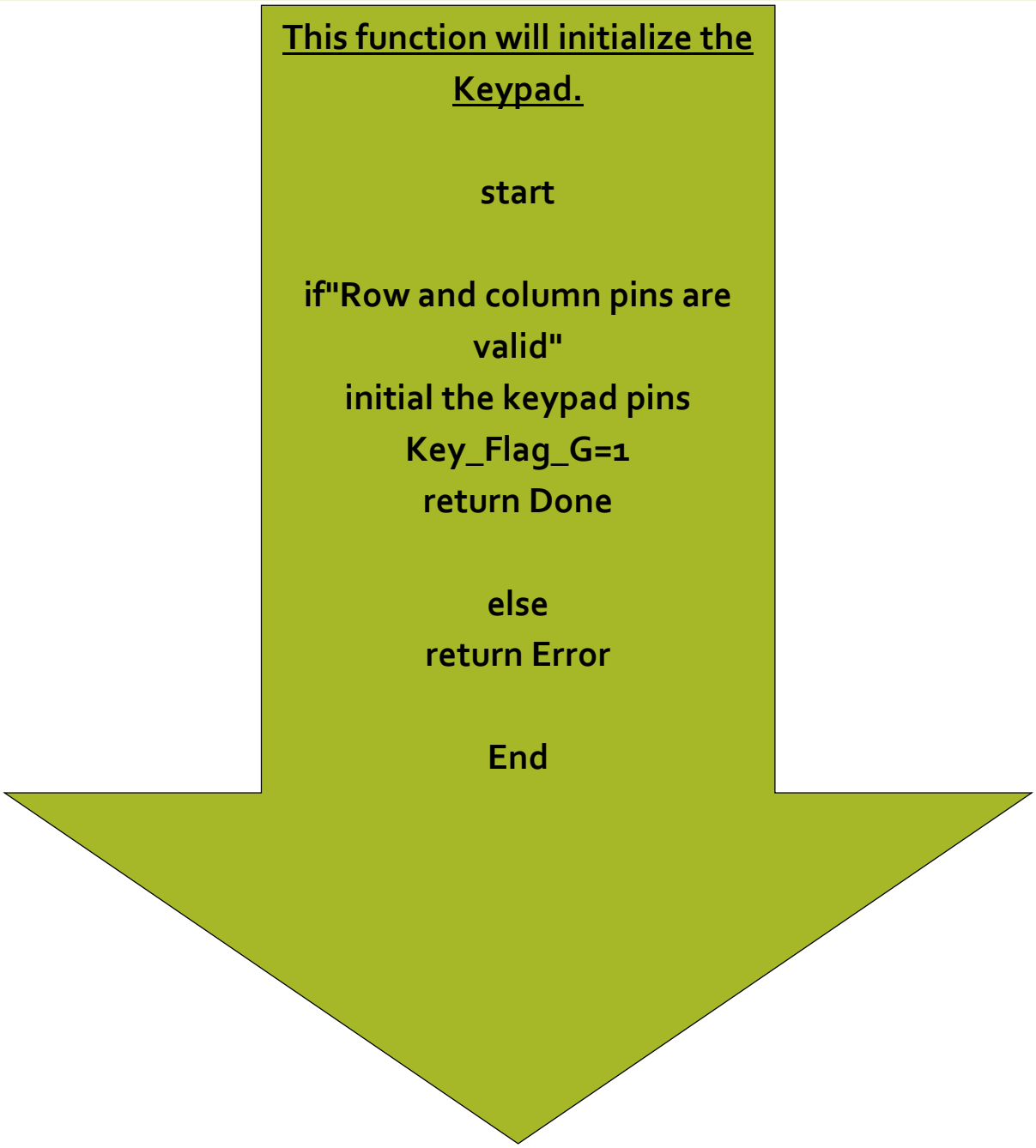
- **Function Description:**
- This function is used to display any data on LCD
- The function store any data that send in the array of char (As a queue) to start displaying the data on LCD by using timer & interrupt to neglect the delay after the LCD initialization finish.
- In interrupt service routine(ISR), call the LCD_WriteData function.



Keypad_Status_en KEYPAD_Init(PIn_name First_Output,PIn_name Firs_Input);

Function Description:

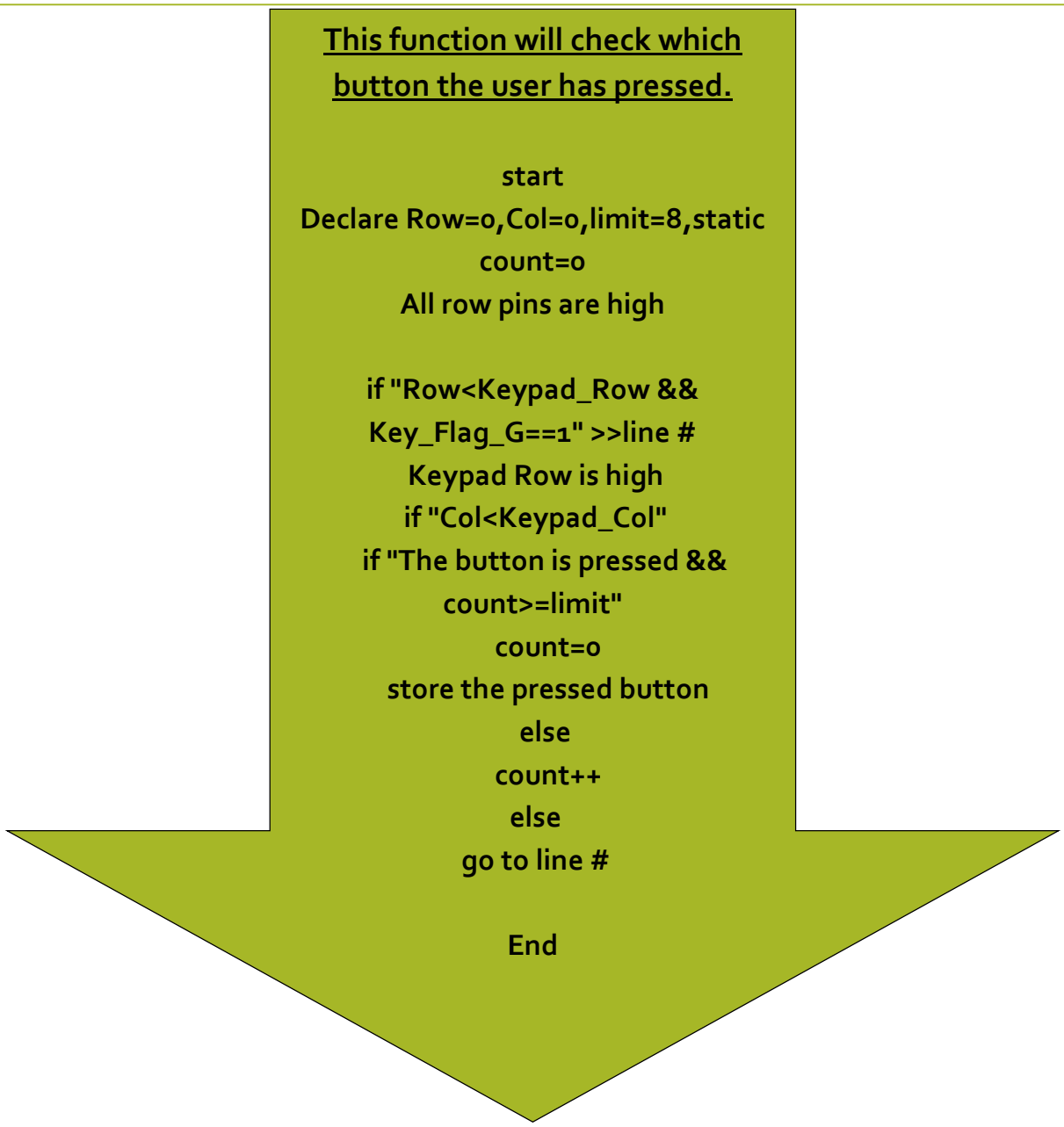
- This function is used to initialize the Keypad.
- At first, the function check if argument pins is valid to be keypad row and colume, then return Done or Error based on last check.



void KEYPAD_GetKey(u8* key);

Function Description:

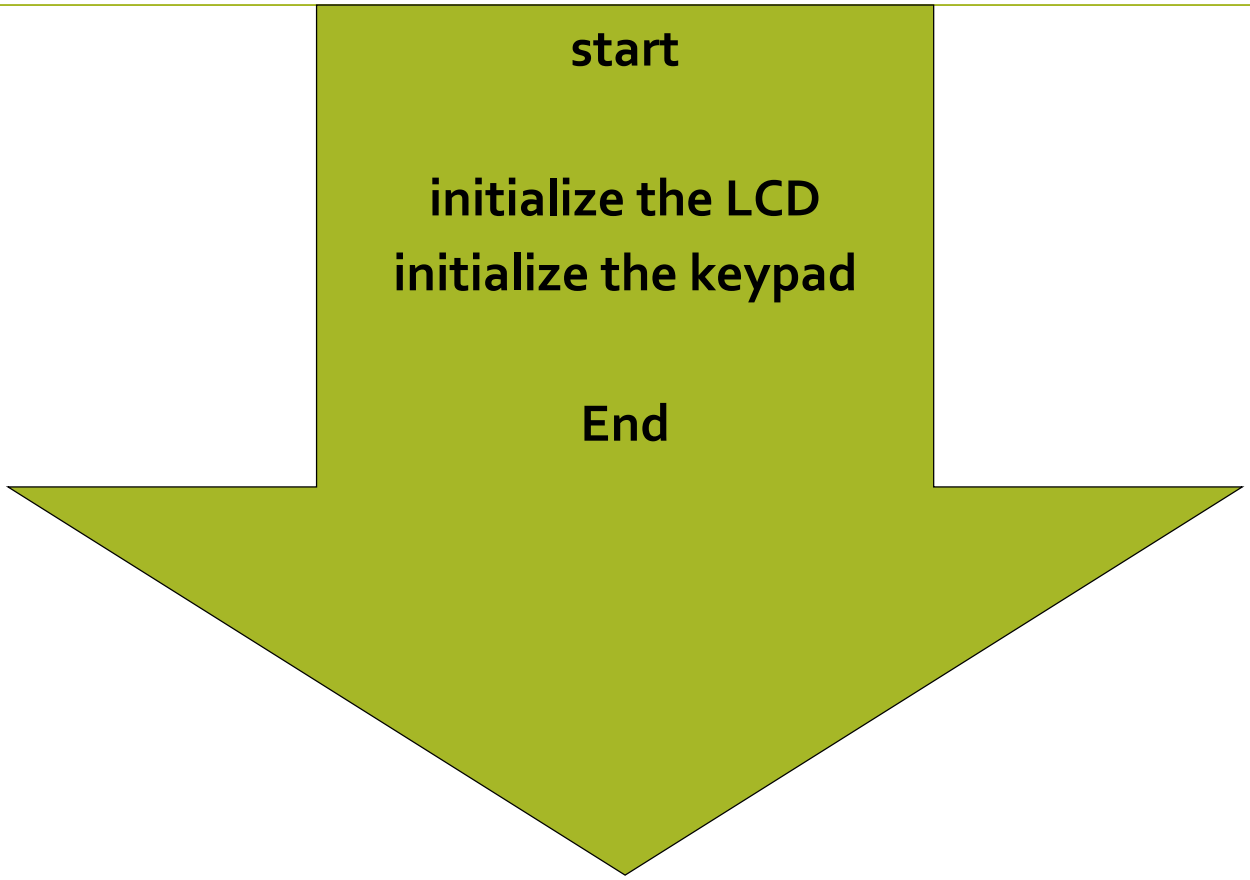
- This function is check any key that user is pressed.
- It checks all buttons.If the button isn't pressed, increase the count .If the button is pressed and the count doesn't reach the limit, increase the count. If the button is pressed and the count reach the limit, return the key that is pressed and make the count=0.
- So, we overcome the bouncing whithout using delay or busy wait (Hold the CPU)



void APP_Init(void);

The application Description:

1) Initialize the LCD & Keypad.



void APP_Start(void);

The application Description:

2)check the all keypad buttons and display the button that is pressed on LCD.