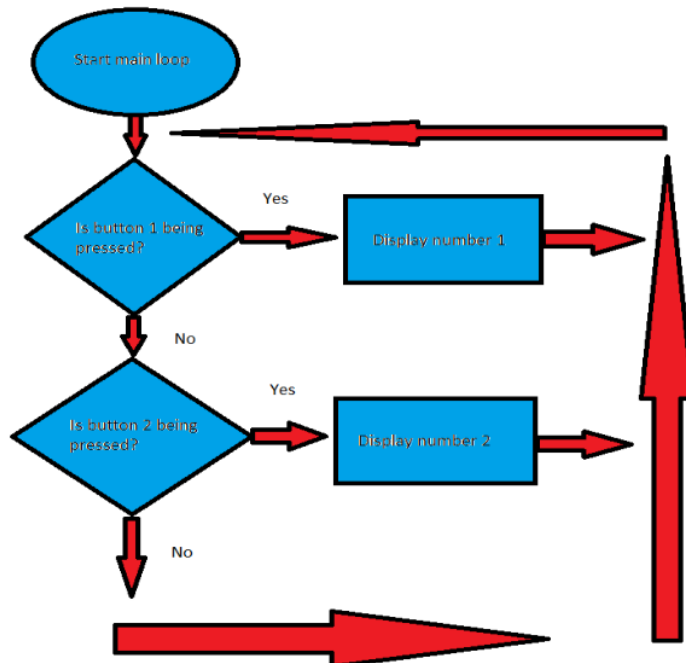
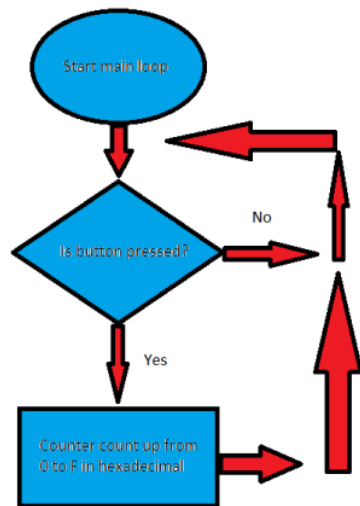
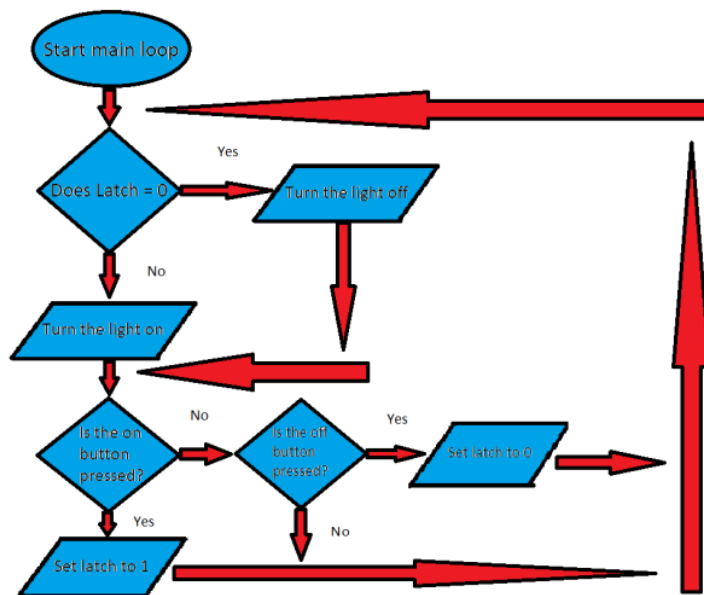


Gethin church assignment

by Gethin Church

FILE	25611_GETHIN_CHURCH_GETHIN_CHURCH_ASSIGNMENT_315192_1297087077.DOCX (95.66K)		
TIME SUBMITTED	25-JAN-2021 03:19PM (UTC+0000)	WORD COUNT	753
SUBMISSION ID	143317989	CHARACTER COUNT	4161





(Main code)

```

=====
; Main.asm file generated by New Project wizard
;
; Created: Wed Nov 4 2020
; Processor: PIC16F84A
; Compiler: MPASM (Proteus)
=====

;=====
; DEFINITIONS
;=====

#include p16f84a.inc      ; Include register definition file
portA    equ    0x05      ;port A address
trisa     equ 0x05      ;trisa address in register bank 1
portB     equ    0x06      ;port B address

```

```
trisb          equ 0x06          ;trisB address in register bank 1
```

```
status equ 0x03          ;status register
```

```
RP0           equ 5          ;bit 5 of status register
```

```
RP1           equ 6          ;bit 6 of status register
```

```
=====
```

```
; VARIABLES
```

```
=====
```

```
count equ 0x0c          ; counter 0 to 255
```

```
nCount equ 0x0d          ; pause routine inner loop counter
```

```
mCount equ 0x0e          ; pause routine outer loop counter
```

```
Latch equ 0x0f
```

```
=====
```

```
; RESET and INTERRUPT VECTORS
```

```
=====
```

```
; Reset Vector
```

```
RST code 0x0
```

```
goto Start
```

```
=====
```

```
; CODE SEGMENT
```

```
=====
```

```
PGM code
```

```
Start
```

```
bcf          status,RP0          ; clear bank selection bits in the status reg
```

```
bcf          status,RP1
```

```
bsf          status,RP0          ; select bank 1
```

```
movlw 0x00          ; load w with 0x00
```

```
movwf trisb          ; load it into trisb to make portb all outputs
```

```
movlw 0x03          ; load w with 0x03
```

```

movwf trisa          ; load it into trisa to make porta all inputs
bcf          status,RP0      ; reselect bank 0

clrf    portB          ; clear all lines low
clrf    count          ; initialize counter to 0

```

Task1

```

btfss portA,0 ; Checking button 1
goto    Number1

btfss portA,1 ; Checking button 2
goto    Number2

movlw    0xFF    ; load w with 0xFF
movwf    portB    ; load it into portB
goto    Task1

```

Number1

```

movlw    0xF9    ; load w with 0xF9
movwf    portB
goto    Task1

```

Number2

```

movlw    0xA4    ; load w with 0xA4
movwf    portB
goto    Task1

```

Numberloop

```

movlw    0x40    ;displays the number 0
movwf    portB
call    pause    ; delay 200ms by subroutine
call    pause

movlw    0xf9    ;displays the number 1
movwf    portB
call    pause    ; delay 200ms by subroutine
call    pause

```

```
movlw 0xa4 ;displays the number 2
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0xb0 ;displays the number 3
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0x99 ;displays the number 4
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0x92 ;displays the number 5
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0x82 ;displays the number 6
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0xf8 ;displays the number 7
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0x80 ;displays the number 8
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0x98 ;displays the number 9
movwf portB
call pause ; delay 200ms by subroutine
call pause

movlw 0x88 ;displays the Letter A
movwf portB
call pause ; delay 200ms by subroutine
```

```

call    pause
movlw   0x83    ;displays the Letter b
movwf   portB
call    pause          ; delay 200ms by subroutine
call    pause
movlw   0xc6    ;displays the Letter C
movwf   portB
call    pause          ; delay 200ms by subroutine
call    pause
movlw   0xa1    ;displays the Letter d
movwf   portB
call    pause          ; delay 200ms by subroutine
call    pause
movlw   0x86    ;displays the Letter E
movwf   portB
call    pause          ; delay 200ms by subroutine
call    pause
movlw   0x8e    ;displays the Letter F
movwf   portB
call    pause          ; delay 200ms by subroutine
call    pause
goto    Numberloop

get_count
movf    count, w ; move count to W

movwf   portB          ; move W to port B to update the display

addlw   1              ; add +1 to W

movwf   count          ; save W in count

call    pause          ; delay 200ms by subroutine
call    pause

```

```
goto    get_count    ; repeat forever
```

return

; else exit subroutine

;=====

END

Gethin church assignment

GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

Instructor

11 / 100

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PAGE 6

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GRADING FORM: GJ_2019

GETHIN CHURCH

55

ENGAGEMENT WITH LITERATURE



"this section will be concerned with your ability to obtain relevant information on the components used in the "HND/BENG PIC16F84

Assignment Board" circuit." Unfortunately - this section has not been attempted at all

KNOWLEDGE AND UNDERSTANDING



"Marks will be allocated based on the demonstration and extent of knowledge and understanding of the general concepts and underlying principles of the circuit operation and the individual components." Unfortunately - this section has not been attempted at all

COGNITIVE AND INTELLECTUAL



There simply isn't enough detail here or tasks done to enable this section to be adequately marked!

20

PRACTICAL APPLICATION



No evidence of the proteus circuit, or how the LED digits were calculated. Much of the assignment simply hasn't been attempted or documented!

15

TRANSFERABLE SKILLS



Reports should have a cover page with the name of the student as well as the assignment title. Also should have a table of contents, and formatted with appropriate sections etc. Should have a references section. Needs more content - much of the assignment simply hasn't been done.

20