

ASSIGNMENT NO 6
LCD Interfacing

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32243

```
#include <p18f4550.h>
#include "vector_relocate.h"
```

```
#define RS PORTEbits.RE0
```

```
#define RW PORTEbits.RE1
```

```
#define EN PORTEbits.RE2
```

```
void delay(unsigned int itime);
```

```
void lcd_cmd(unsigned char cmd);
```

```
void lcd_data(unsigned char data);
```

```
void lcd_init(void);
```

```
void lcd_cmd(unsigned char cmd){
```

```
    PORTD = cmd;
```

```
    RS = 0;
```

```
    RW = 0;
```

```
    EN = 1;
```

```
    delay(50);
```

```
    EN = 0;
```

```
    delay(50);
```

```
}
```

```
void lcd_data(unsigned char data){
```

```
    PORTD = data;
```

```
    RS = 1;
```

```
RW = 0;  
EN = 1;  
delay(50);  
EN = 0;  
delay(50);  
}
```

```
void lcd_init(void){  
lcd_cmd(0x38);  
delay(50);  
lcd_cmd(0x0E);  
delay(50);  
lcd_cmd(0x06);  
delay(50);  
lcd_cmd(0x01);  
delay(50);  
}
```

```
void delay(unsigned int itime){  
int i, j;  
for(i = 0; i < itime; i++){  
for(j = 0; j < 165; j++){  
}  
}  
}
```

```
void main(){
```

```
unsigned char Name[7] = "MALHAR";
unsigned char Sname[9] = "KULKARNI";
unsigned int i, j;

ADCON1 = 0x0F ;
delay(50);
TRISD = 0x00;
TRISE = 0x00;

lcd_init();
delay(500);
lcd_cmd(0x84);
delay(500);

for(i = 0; i < 7; i++){
    lcd_data(Name[i]);
    delay(50);
}

lcd_cmd(0xC3);
delay(500);

for(j = 0; j < 6; j++){
    lcd_data(Sname[j]);
    delay(50);
}

}
```