#include<avr/io.h>

#include<util/delay.h>

void lcdcmd(char a)

{

PORTC=0xF0&a;

PORTC&=~(1<<0);

PORTC&=~(1<<1);

PORTC|=(1<<2);

\_delay\_ms(100);

PORTC&=~(1<<2);

\_delay\_ms(100);

a=a<<4;

PORTC=0xF0&a;

PORTC&=~(1<<0);

PORTC&=~(1<<1);

PORTC|=(1<<2);

\_delay\_ms(100);

PORTC&=~(1<<2);

\_delay\_ms(100);

}

void lcddata(char a)

{

PORTC=0xF0&a;

PORTC|=(1<<0);

PORTC&=~(1<<1);

PORTC|=(1<<2);

\_delay\_ms(100);

PORTC&=~(1<<2);

\_delay\_ms(100);

a=a<<4;

PORTC=0xF0&a;

PORTC|=(1<<0);

PORTC&=~(1<<1);

PORTC|=(1<<2);

\_delay\_ms(100);

PORTC&=~(1<<2);

\_delay\_ms(100);

}

void display(char y[])

{

int i;

for(i=0;y[i]!='\0';i++)

{

lcddata(y[i]);

}

}

void tx(char x)

{

UDR=x;

while((UCSRA&0b01000000)==0b00000000);

UCSRA=0x00;

\_delay\_ms(10);

}

void strtx(char y[])

{

int i;

for(i=0;y[i]!='\0';i++)

{

tx(y[i]);

}

}

int flag=1;

int a[10],i,j=0;;

main()

{

DDRA=0b11100000;

DDRB=0B00001111;

DDRC=0xFF;

lcdcmd(0x02);

lcdcmd(0x28);

lcdcmd(0x0E);

PORTB=0xFF;

UBRRL=51;

UCSRA=0b00000000;

UCSRB=0b00011000;

UCSRC=0b10000110;

char t[10];

a:

i=0,j=0;

flag=1;

lcdcmd(0x80);

display("WELCOME TO SELF ");

lcdcmd(0xC0);

display("SERVICE STATION ");

\_delay\_ms(2000);

lcdcmd(0x01);

display("PLACE YOUR FINGER");

lcdcmd(0xC0);

display("PRINT ");

\_delay\_ms(5000);

lcdcmd(0x01);

if(PINA==0b00000001)

{

display("AUTHENTICATED");

\_delay\_ms(1000);

lcdcmd(0x01);

lcdcmd(0x80);

display("ENTER YOUR ADHAR ");

lcdcmd(0xC0);

display("NUMBER...... ");

\_delay\_ms(2000);

lcdcmd(0x01);

while(1)

{

PORTB=0b11111110;

if(PINB==0b11101110)

{

lcddata('1');

a[i]=1;

i++;

\_delay\_ms(2000);

}

if(PINB==0b11011110)

{

lcddata('2');

a[i]=2;

i++;

\_delay\_ms(2000);

}

if(PINB==0b10111110)

{

lcddata('3');

a[i]=3;

i++;

\_delay\_ms(2000);

}

PORTB=0b11111101;

if(PINB==0b11101101)

{

lcddata('4');

a[i]=4;

i++;

\_delay\_ms(2000);

}

if(PINB==0b11011101)

{

lcddata('5');

a[i]=5;

i++;

\_delay\_ms(2000);

}

if(PINB==0b10111101)

{

lcddata('6');

a[i]=6;

i++;

\_delay\_ms(2000);

}

PORTB=0b11111011;

if(PINB==0b11101011)

{

lcddata('7');

a[i]=7;

i++;

\_delay\_ms(2000);

}

if(PINB==0b11011011)

{

lcddata('8');

a[i]=8;

i++;

\_delay\_ms(2000);

}

if(PINB==0b10111011)

{

lcddata('9');

a[i]=9;

i++;

\_delay\_ms(2000);

}

if(i==3)

{

lcdcmd(0x01);

if((a[0]==2)&&(a[1]==3)&&(a[2]==5)&&(flag==1))

{

flag=0;

lcdcmd(0x01);

display("ENTER THE AMOUNT...");

\_delay\_ms(500);

///6lcdcmd(0x01);

lcdcmd(0xc0);

}

if(flag==0)

{

PORTB=0b11111110;

if(PINB==0b11101110)

{

lcddata('1');

t[j]='1';

j++;

\_delay\_ms(2000);

}

if(PINB==0b11011110)

{

lcddata('2');

t[j]='2';

j++;

\_delay\_ms(2000);

}

if(PINB==0b10111110)

{

lcddata('3');

t[j]='3';

j++;

\_delay\_ms(2000);

}

PORTB=0b11111101;

if(PINB==0b11101101)

{

lcddata('4');

t[j]='4';

j++;

\_delay\_ms(2000);

}

if(PINB==0b11011101)

{

lcddata('5');

t[j]='5';

j++;

\_delay\_ms(2000);

}

if(PINB==0b10111101)

{

lcddata('6');

t[j]='6';

j++;

\_delay\_ms(2000);

}

PORTB=0b11111011;

if(PINB==0b11101011)

{

lcddata('7');

t[j]='7';

j++;

\_delay\_ms(2000);

}

if(PINB==0b11011011)

{

lcddata('8');

t[j]='8';

j++;

\_delay\_ms(2000);

}

if(PINB==0b10111011)

{

lcddata('9');

t[j]='9';

j++;

\_delay\_ms(2000);

}

if((j==3))

{

i=0;

j=0;

PORTA=0b01000000;

\_delay\_ms(2000);

PORTA=0b10000000;

\_delay\_ms(2000);

PORTA=0b00000000;

\_delay\_ms(200);

strtx("AT\n\r");

\_delay\_ms(100);

strtx("AT+CMGF=1\n\r");

\_delay\_ms(2000);

strtx("AT+CMGS=\"+917017242854\"\n\r");

\_delay\_ms(2000);

strtx("AMOUNT DETECTED \n\r");

strtx(t);

strtx(" /Rs");

\_delay\_ms(2000);

tx(0x1A);

lcdcmd(0x01);

break;

}

}

if((flag==2)&&(a[0]!=1)&&(a[1]!=3)&&(a[2]!=5))

{

lcdcmd(0x01);

display("incorrect");

strtx("AT\n\r");

\_delay\_ms(100);

strtx("AT+CMGF=1\n\r");

\_delay\_ms(2000);

strtx("AT+CMGS=\"+917017242854\"\n\r");

\_delay\_ms(2000);

strtx("WRONG PASSWORD\n\r");

\_delay\_ms(2000);

tx(0x1A);

\_delay\_ms(2000);

lcdcmd(0x01);

break;

}

}

}

}

else

{

display("ACCESS DENIED");

\_delay\_ms(3000);

lcdcmd(0x01);

}

goto a;

}