```
#define F_CPU 16000000UL
#include <avr/io.h>
#include <util/delay.h>

// LCD control pins connected to PORTC
#define RS PC6
#define EN PC7

void LCD_command(unsigned char cmd)
{
    PORTD = cmd;                  // Put command on data bus
    PORTC &= ~(1 << RS);            // RS = 0 for command
    PORTC |= (1 << EN);             // EN = 1
    _delay_ms(10);
    PORTC &= ~(1 << EN);            // EN = 0
    _delay_ms(20);
}

void data_to_lcd(unsigned char data)
{
    PORTD = data;                 // Put data on data bus
    PORTC |= (1 << RS);             // RS = 1 for data
    PORTC |= (1 << EN);             // EN = 1
    _delay_ms(10);
    PORTC &= ~(1 << EN);            // EN = 0
    _delay_ms(20);
}

void string_to_lcd(const char* str, unsigned char num)
{
    for (unsigned char i = 0; i < num; i++)
    {
        data_to_lcd(str[i]);
    }
}

void initializing_to_lcd(void)
{
    LCD_command(0x38);    // 8-bit, 2 line, 5x7 font;  0011 1000
    _delay_ms(20);
    LCD_command(0x06);    // Entry mode; 0000 0110
    _delay_ms(20);
    LCD_command(0x0C);    // Display ON, Cursor OFF; 0000 1100
    _delay_ms(20);
    LCD_command(0x01);    // Clear display; 0000 0001
    _delay_ms(20);
}

int main(void)
```

```
50  {
51      DDRC |= (1 << RS) | (1 << EN);  // Seting control lines as output
52      DDRD = 0xFF;                            // Seting all PORTD pins as
          output
53
54      initializing_to_lcd();
55
56      while (1)
57      {
58          LCD_command(0x80);          // Line 1, pos 5
59          string_to_lcd("USMAN T", 7);
60          LCD_command(0xC5);          // Line 2, pos 5
61          string_to_lcd("456707", 6);
62          _delay_ms(1000);
63
64          LCD_command(0x01);
65
66          LCD_command(0x80);          // Line 1, pos 5
67          string_to_lcd("USMAN", 5);
68          LCD_command(0xC5);          // Line 2, pos 5
69          string_to_lcd("454247", 6);
70          _delay_ms(1000);
71
72          LCD_command(0x01);
73
74          LCD_command(0x80);          // Line 1, pos 5
75          string_to_lcd("UMER", 4);
76          LCD_command(0xC5);          // Line 2, pos 5
77          string_to_lcd("458034", 6);
78          _delay_ms(1000);
79
80          LCD_command(0x01);
81
82          LCD_command(0x80);          // Line 1, pos 5
83          string_to_lcd("Rajab", 5);
84          LCD_command(0xC5);          // Line 2, pos 5
85          string_to_lcd("454181", 6);
86          _delay_ms(1000);
87
88          LCD_command(0x01);
89
90      }
91  }
```