

Name: Saba Asif Attar.

Roll no: SIA77

Batch: D

Class: S.E IT-A

Assignmnet No: 03

Aim: Write an Embedded C program to transfer elements from one location to another for following:

- i. Memory transfer
- ii. Memory exchange

Program (Memory transfer):

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#include <PIC18F4550.h>
```

```
void main(void)
```

```
{
```

```
    int i;
```

```
    int source[5] = {0x0A,0x0B,0x0C,0x0D,0x0E};
```

```
    int dest[5] = {0x00,0x00,0x00,0x00,0x00};
```

```
    for(i = 0; i < 5; i++)
```

```
    {
```

```
        dest[i] = source[i];
```

```
    }
```

```
    TRISD = 0;
```

```
    for(i = 0; i < 5; i++)
```

```
    {
```

```
        PORTD = dest[i];
```

```
        for(int n = 0; n < 1000; n++)
```

```
        {
```

```
            for(int j = 0; j < 500; j++)
```

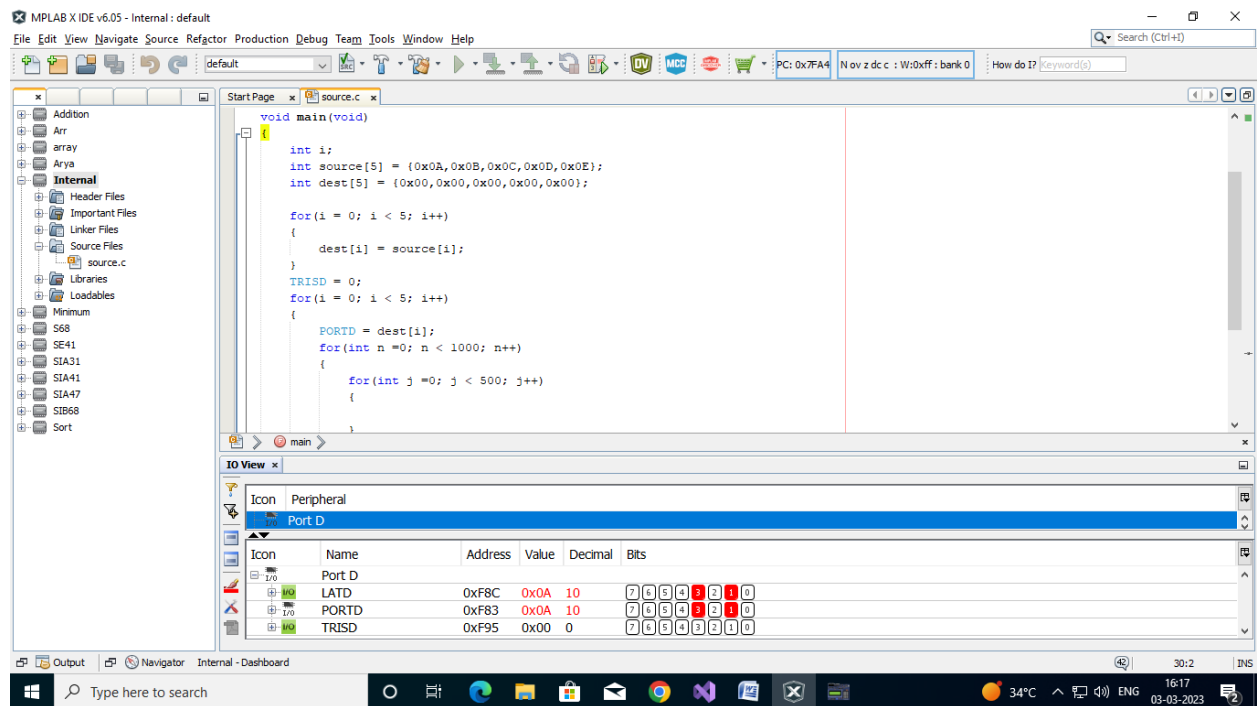
```

    }
}
return ;
}

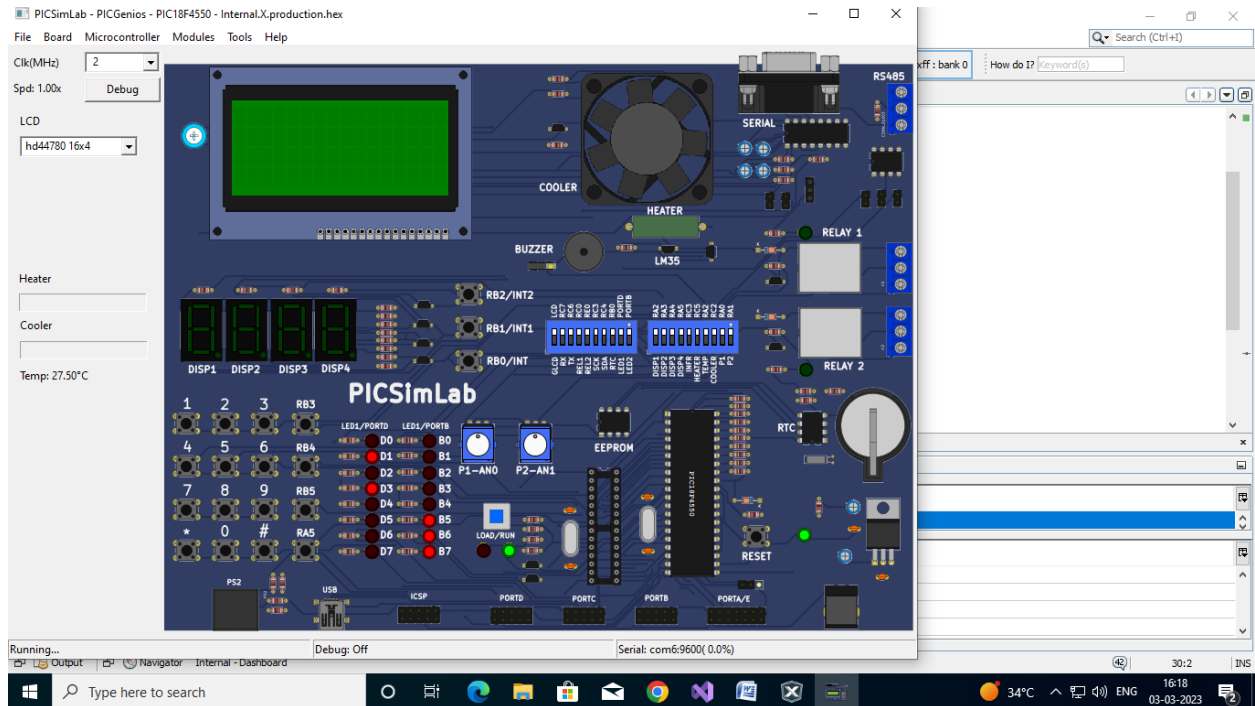
```

Output:

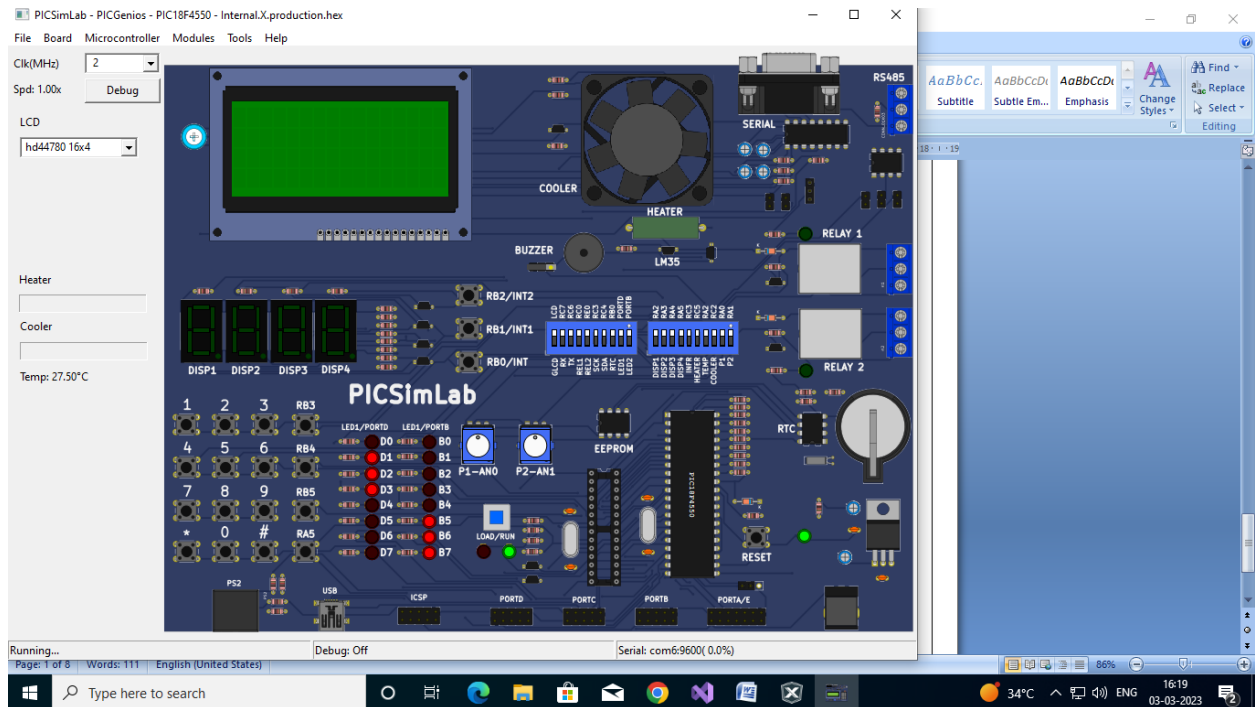
In MPLAB IDE



In PICSIM LAB







Program (Memory exchange):

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#include <PIC18F4550.h>
```

```
void main(void)
```

```
{
```

```
    int i;
```

```
    int source[5] = {0x0A,0x0B,0x0C,0x0D,0x0E};
```

```
    int dest[5] = {0x01,0x02,0x03,0x04,0x05};
```

```
    int temp[5] = {0x00,0x00,0x00,0x00,0x00};
```

```
    for(i = 0; i < 5; i++)
```

```
    {
```

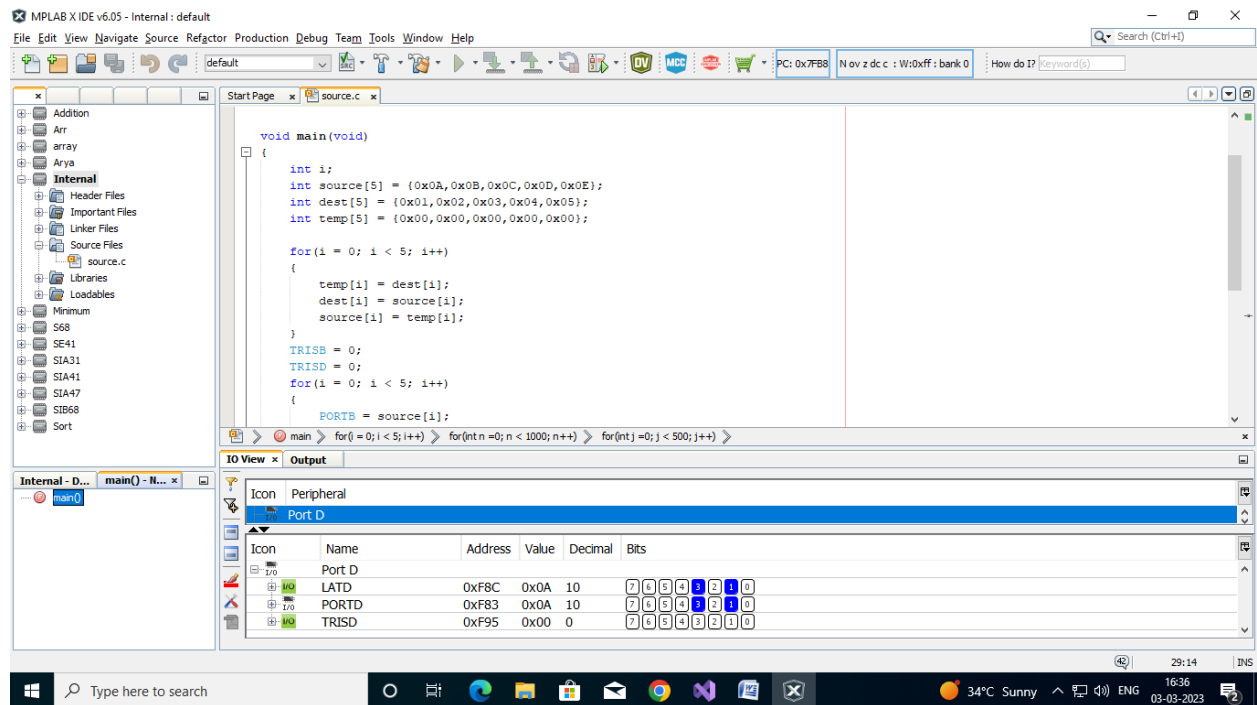
```
        temp[i] = dest[i];
```

```
        dest[i] = source[i];
```

```
        source[i] = temp[i];  
    }  
    TRISB = 0;  
    TRISD = 0;  
  
    for(i = 0; i < 5; i++)  
    {  
        PORTB = source[i];  
        PORTD = dest[i];  
  
        for(int n =0; n < 1000; n++)  
        {  
            for(int j =0; j < 500; j++)  
            {  
            }  
        }  
    }  
    return ;  
}
```

Output:

In MPLAB IDE



In PICSIM LAB

