

## ASSIGNMENT 4

**Name : Shubham Nemade**

**Roll no: 23151**

```
/*
```

```
* File: multiply.c
```

```
* Author: shubham
```

```
*
```

```
*/
```

```
/
```

Write an Embedded C menu driven program for :

i) Multiply 8 bit number by 8 bit number

ii) Divide 8 bit number by 8 bit number\*/

```
#include <xc.h>
```

```
#include<pic18f4550.h>
```

```
void main(void) {
```

```
    int num1,num2;
```

```
    int result,i;
```

```
    int choice;
```

```
    TRISB =1;//config port b for taking input
```

```
    PORTB=choice;
```

```
    result=0;
```

```
num1=0x10;
num2=0x2;
switch(choice){
    case 1:
        for(i=1;i<=num2;i++){
            result+=num1;
        }
        //return result;
        break;

    case 2:
        result=num1/num2;

        //return result;
        break;
}
TRISB =0;//config port for giving output
PORTB=result;
}
```

# OUTPUT

Name	Type	Address	Value
<input checked="" type="checkbox"/> i	int	0x8	0x0004
<input checked="" type="checkbox"/> choice	int	0xF	0x0001
<input checked="" type="checkbox"/> result	int	0xD	0x0030
<input type="button" value="Enter new watch"/>			

## Multiplication

Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	ASCII
000	00	00	00	00	00	00	00	00	00	80	00	03	00	20	00	01	.....
010	00	10	00	02	00	00	00	00	00	00	00	00	00	00	00	00	.....
020	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
030	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
040	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
070	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
080	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....

Memory File Registers Format Hex

## Division

Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	ASCII
000	00	08	00	01	00	00	00	08	00	02	00	00	00	08	00	02	.....
010	00	10	00	02	00	00	00	00	00	00	00	00	00	00	00	00	.....
020	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
030	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
040	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
070	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
080	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....

Memory: File Registers      Format: Hex