

Assignment -4

```
#include <xc.h>
int a = 8, b = 4, c;
int ch = 1; // 1 = multiply, 2 = divide
void main(void) {
    TRISD = 0x00;
    PORTD = 0x00;
    switch(ch){
        case 1:
            c = a * b;
            break;
        case 2:
            c = a / b;
            break;
        default:
            c = 0;
            break;
    }
    PORTD = c;
    while(1){
    }
}
```

The top screenshot shows the MPLAB IDE with the following state:

- Source Window:** The C code is displayed. The execution state is at the `switch(ch)` statement, specifically the `case 2` block.
- Memory Window:** Shows the memory map from address 000 to 140. The value at address 000 is 02, and at address 001 is 00.
- SFRs Window:** Shows the status of various SFRs. The `PORTD` register (address 0x02) has a value of 0x02.

The bottom screenshot shows the same MPLAB IDE with the following state:

- Source Window:** The execution state has moved to the `default` case of the `switch` statement.
- Memory Window:** The value at address 000 is now 00, and at address 001 is 00.
- SFRs Window:** The `PORTD` register (address 0x02) now has a value of 0x20.