

Using register banks and immediate mode

Only one register bank, with registers R0-R7 can be accessed at any one time.

Use the **PSW register** (at address **D0h**) to select the register bank.

Program Status Word (PSW)

Bit	7	6	5	4	3	2	1	0
Flag	CY	AC	F0	RS1	RS0	OV	F1	P
Name	Carry Flag	Auxiliary Carry Flag	User Flag 0	Register Bank Select 1	Register Bank Select 0	Overflow flag	User Flag 1	Parity Bit

Examples:

```
mov 0D0h, #0 ; select register bank 0 (00000000)
```

```
mov 0D0h, #18h ; select register bank 3 (00011000)
```

Exercise:

Write a program to put the values 0-7 in R0-R7 of register bank 0, and the values 8-15 in R0-R7 of register bank 1. Be sure to place your code in the code segment by using “cseg”. Save your file as **reg_banks.asm**. Assemble, build, and download your program. View the REGS window and the RAM window to see what is happening as you step through the program.