

Activity 1. TOGGLE:

```
MOV    A, #55H    ; A <- 01010101B
MOV    P0, A      ; P0 <- 01010101B
MOV    P1, A      ; P1 <- 01010101B
MOV    P2, A      ; P2 <- 01010101B
```

```
ACALL   DELAY
```

```
MOV    A, #0AAH   ; A <- 10101010B
MOV    P0, A      ; P0 <- 10101010B
MOV    P1, A      ; P1 <- 10101010B
MOV    P2, A      ; P2 <- 10101010B
```

```
ACALL   DELAY
SJMP    TOGGLE
```

DELAY:

```
MOV     R0, #250
LOOP0:  MOV R1, #164
LOOP1:  DJNZ R1, LOOP1
        DJNZ R0, LOOP0
RET
```

END

Activity 2.

```
MOV     P0, #0     ; P0 = OUTPUT
MOV     P2, #0     ; P1 = OUTPUT
```

```
MOV     A, P1      ; A <- P1
MOV     P0, A      ; P0 <- P1
MOV     P2, A      ; P2 <- P1
MOV     R0, A      ; R0 <- P1
MOV     R1, A      ; R1 <- P1
MOV     R2, A      ; R2 <- P1
```

END

- Activity 3.
1. Upon reset, all the ports of the 8051 are configured as **input**.
  2. To make all the bits of a port an output port we must write **0** hex to it.
  3. Which ports of the 8051 are bits addressable?  
**Ans:** P0, P1, P2, and P3.
  - 4.

```
MOV      P1, #0                ; P1 = OUTPUT
HIGH:
        JB      P2.4, HIGH
        MOV     P1, #55H
END
```