

# Procedures

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## 1 Using Procedures

- To write a procedure
    - You need to put the procedure code somewhere e.g. `ORG 50`
    - You need to put a `RET` at the end of the procedure
  - To use a procedure
    - `CALL` the address where the procedure is located e.g. `CALL 50`
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## 2 Backing Up Registers

- Like most code, our procedure uses registers
    - *AL* and *BL* in this case
  - Which means we could have a problem, since the procedure might modify the registers which are being used by the program
  - To prevent this, we use the stack to save the registers at the start of the procedure by using `PUSH AL` `PUSH BL`
  - We can then restore these backed up registers from the stack using `POP BL` `POP AL`
    - Note the order they are being popped, since it is a stack
  - We can then use `RET` and continue the program with the original registers
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