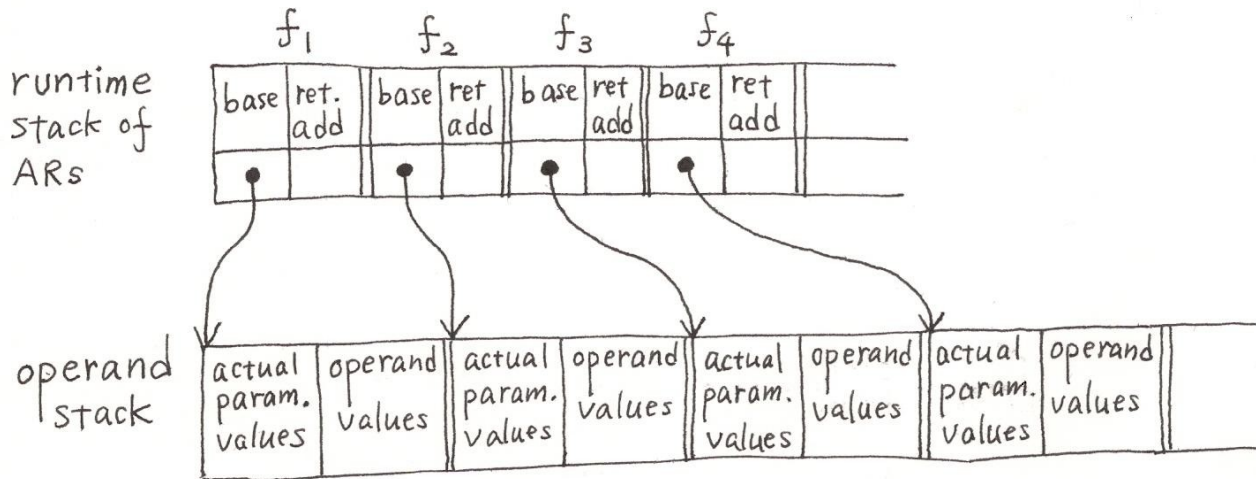Here is a virtual machine implemented in Java for the instructions used in Project 4. It has passed the test of about 20 correct instruction streams. No attempt is made to deal with runtime errors in the VM's code itself – instead, VM's runtime errors result in those in Java.

The VM uses a single operand stack shared by all function calls. The bottom of the operand stack segment for each function call is indexed by the field *base* in activation records. The activation record contains only two items: the *base* index and the return address.

You can download all the classes below and run by:

java VM in.txt out.txt

The in.txt file should contain an instruction stream. The evaluation result will be printed on the screen. Lex/syntax error messages will go to out.txt.

- State
- LexInst
- VM
- AR
- Instruction
    - Call
    - Return
    - Goto
    - Iff
    - Operator1
    - Operator2
    - Push
        - PushNum
        - PushVar
- Elem
    - ElemBool
    - Num