Tabbed VM Simulator

VM 1 (6)

Memory (1)

Address	Value
000	+000000
001	+000000
002	+000000
003	+000000
004	+000000
005	+000000
006	+000000
007	+000000
008	+000000
009	+000000
010	+000000
011	+000000
012	+000000
013	+000000
014	+000000
015	+000000
016	+000000
017	+000000
018	+000000
019	+000000
020	+000000
021	+000000
022	+000000
023	+000000
024	+000000
025	+000000
026	+000000
027	+000000
028	+000000

(3)

[Import File] [Run Program] [Program Editor]

[Save File]

Status (2)

Accumulator: 0

Program Counter: 0

Console (4)

[Enter]

+

Program Editor

Program Editor (5)

[Process]

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(1) **Memory Section**

Displays the contents of the VM's memory

Shows memory addresses and their corresponding values

Updated in real-time as the program runs

(2) **Status Section**

Shows the current state of the VM

Displays the Accumulator value, which holds the result of arithmetic operations

Shows the Program Counter, indicating the address of the next instruction to be executed

(3) **Console Section**

Provides input/output functionality for the VM

Displays program output and prompts for user input

(4) **Control Buttons**

Import File: Loads a program from a text file into the VM's memory

Run Program: Executes the loaded program from the beginning

Program Editor: Opens a separate window for editing the program

Save File: Saves the current program to a text file

(5) **Program Editor**

Allows users to view and edit the program code directly

Provides a "Process" button to load the edited program into the VM

(6) **Tab System**

Allows multiple VM instances to run simultaneously

Users can switch between different VMs using tabs