**Introduction**

This report clarifies the detail plan and usage of SIMMAC, a virtual machine which will acknowledge programs in the objective machine level dialect. SIMMAC is executed utilizing C dialect. SIMMAC is a machine that will acknowledge just a particular machine level dialect. It contains 512 piece expressions of memory, few registers, ALU for performing number-crunching operations and every direction contains an operand and an opcode. SIMMAC machine dialect contains guidelines with opcode and operands. Opcode, for example, ADD, SUB, LDA, STR, BRH, CBR, and LDI are upheld, and operand will hold either the esteem or address of the opcode. SIMMAC ought to execute parallel projects in a round robin method where the time quantum is determined as information.

**Usage and Design**:

Memory distribution: Each guideline is put away in a roast cluster. For every hub, a particular measure of memory is made which is equivalent to the length of a hub. PCB struct: A Process Control Block information structure is kept up by the working frameworks for each procedure to monitor all the data of a procedure. To help parallel execution of SIMMAC programs, round-robin strategy is utilized which will execute the guideline for a particular time confine. If the entire program isn't executed at this particular time, to again begin the execution of the program from where it has ceased, the enlist esteems are put away in this PCB hub. PCB\_Linkedlist struct: This is a structure of connected rundown where every hub speaks to a PCB structure. A single PCB Linkedlist hub is made for each program hence.

Flow Diagram

