Machine Problem 1

========================= **File Description** =========================

1) MainFunction.py
   → This file will contain the main function through which the cache function will be called. This file also contains the function to read the input from the trace file.
2) CacheBlock.py
   → This file contains the class objects required to build the virtual cache.
3) CacheImplementation.py
   → This file contains all the functions for reading and writing the cache. Also contains the different policies to be implemented.

==================== **Command Line Arguments and Execution Steps** ====================

- **Execution Command**

    python MainFunction.py 16 1024 2 0 0 0 0 Traces/gcc_trace.txt

- **Command Line Arguments**

  1) **BLOCKSIZE:** Positive Integer

  2) **L1_SIZE:** Positive Integer

  3) **L1_ASSOC:** Positive Integer.

  4) **L2_SIZE:** Positive Integer

  5) **L2_ASSOC:** Positive Integer

  6) **REPLACEMENT_POLICY:** Positive Integer 0→LRU, 1→ Pseudo-LRU, 2→ Optimal

  7) **INCLUSION_PROPERTY:** Positive Integer. 0 → non-Inclusive, 1 → Inclusive

  8) **Trace File:** String Path (Traces/File_Name)