Project 3: Designing a Virtual Memory Manager

- Objectives
  1. To be sure of understanding the concept of virtual memory
  2. To understand how the memory management system can be implemented in practice
  3. To be able to add a new feature from existing memory management functions
- Procedure
  1. Read the description in Programming Project supported as image files (pp.452~456)
  2. Run the project that has been given through eclass website
  3. The project has a completed version of the basic implementation.
  4. Run the project and see what happens
  5. Analyze the source codes in the project to understand how the required functions are implemented
  6. Give three-page report at the end of this lab to show me the degree of your understanding
  7. Make your report be precise and easily understandable so that I can implement the project only with your report
  8. Get 100 pts if you complete step 1~8.
  9. Implement 'Modifications' part in page 456.
     - Change the physical memory accommodates only **128** frames
     - Need **page replacement** to handle all memory references
       - Implement **two page replacement algorithms** (two among LRU, LRU approximation, and FIFO)
       - Complete the page replacement part with the above algorithms
       - Plug the page replacement part on the initial implementation given to you
         - The statistics add the number of page replacements
     - Analyze the result with the original implementation given to you
     - Also describe the difference of the results with two replacement algorithms are applied each.
     - The report will focus on the difference between the original and your modification
  - Get 300 points after completing step 9.