Verification assignment
Memory Management

The assignment requires you to read parts of Tanenbaum's book (3rd edition).

1. Read Section 3.2.2. Explain the problem explained through Figure 3.4.

2. Read Section 3.2.3.

   (a) How does one represent RAM memory using bitmaps?

   (b) How does one represent RAM memory using linked lists?

   (c) Explain the algorithms: first fit, next fit, best fit, worst fit, quick fit.

3. Read Section 3.3.1.

   (a) What is the MMU?

   (b) What is a page?

   (c) What is a page frame?

   (d) Explain the term 'paging'.

   (e) Explain what is being demonstrated in Figure 3.10.

4. Read Section 3.4.

   (a) Define page replacement algorithm.

   (b) Explain the not recently used page replacement algorithm.

   (c) Explain the 2nd chance page replacement algorithm.

   (d) Explain the LRU page replacement algorithm.

   (e) Explain the NFU page replacement algorithm.

   (f) Explain the 'ageing' algorithm.