

Suppose, in a multiplayer shooting game 5 players follow the similar rules where they can run, duck, shoot and change weapons. Each of these activities needs memory of 2KB. Each player requires 4KB memory space for their individual score.

Your task is to show how the activities (functions) for each of the players will be loaded into the memory efficiently given the physical memory size is 64KB and frame size is 4KB. Assign the pages of each process at your own choice upon meeting the requirements.

Now,

- a. Calculate the number of frames needed for loading all 5 processes into the memory.
- b. Show the page table of each process which maps the logical address space physical address space.
- c. Find if there is any internal fragmentation. If so, find the amount of space that has been wasted for internal fragmentation.