GRAPHS:

y-axis: virtual address

x-axis: time

**KERNEL COMPILATION**

The operating system swaps pages between the swap file and physical memory.

When swapping occurs the virtual address space can't be modified since applications hold pointers into it. When the page it points to is swapped out a single pointer shouldn't become not valid. If an application tries to refer a pointer into a page that has been moved out of memory, the operating system then has to interfer the swaping process to get the page back in. That's why the CPU to generates a page fault.

Hence, initially, when a process is ready and selected for execution, there are many page faults

**SYSBENCH**

page faults occur mostly towards the end of time. and at the start and end of the virtual addresses.

This is because it is compute extensive so it takes up a lot while executing

**IOSTAT/SYSSTAT**

NO PAGE FAULTS OCCUR HERE.

as the processes is well supported by the OS, no page faults whatsoever occur in IOSTAT/SYSSTAT