**Individual Work:**

2.14) One way to get a statistical profile for a program is using timer interrupts. By having frequent timer interrupts a statistical profile can be created by checking the progress the program has made in between interrupts. This statistical profile can be used to help optimize a program by showing what sections of code take the longest. Using this information programmers will know where there is a bottleneck in their program.

2.19) It is important to separate policy and mechanisms to make it easier for changes to be made after the fact. Policies tend to change over time to fit the current need. By keeping the mechanisms separate from policies fewer changes will need to be made to the mechanisms over time. This separation greatly improved flexibility and modularity.

2.20) The book gives the example of the backing storing causing unclear scenario on how to layer system component. While the backing storing is a type of memory operation it would be assumed it would considered a memory management routine. However, since memory managements routines need the back-storing operation, back storing must be a lower level than memory management.

2.21) The main advantage of the microkernel approach is the shrinking and simplifying of the kernel. This is done by removing all nonessential components from the kernel and implementing them as system and user-level programs. By removing these services from the kernel, it makes modifying the kernel easier as well. These system and user-level programs can interact with the microkernel by using message passing. The main disadvantage of using a microkernel is the performance loss due to increased system calls.